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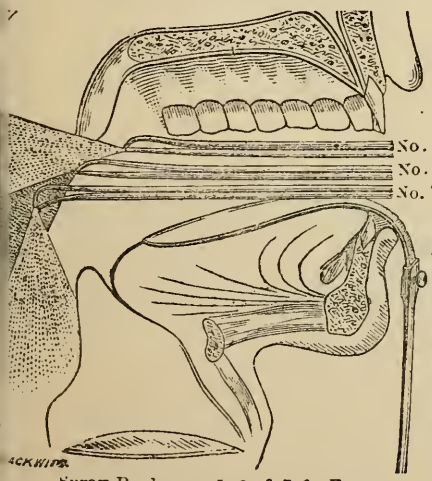

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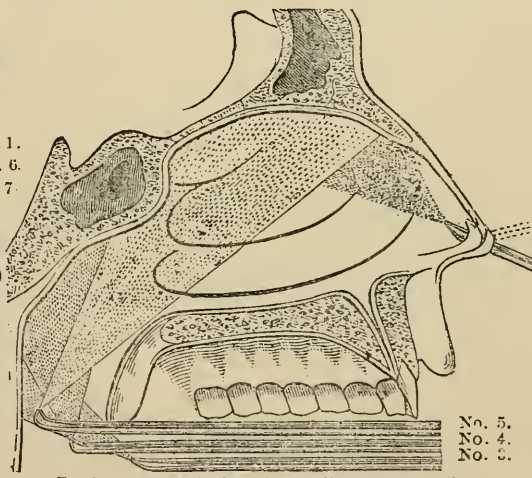

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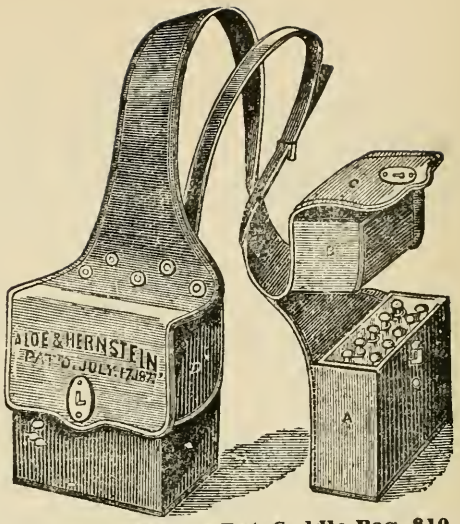

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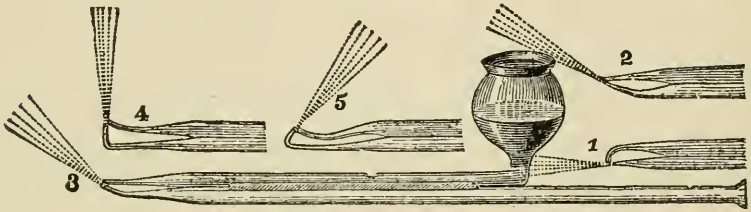

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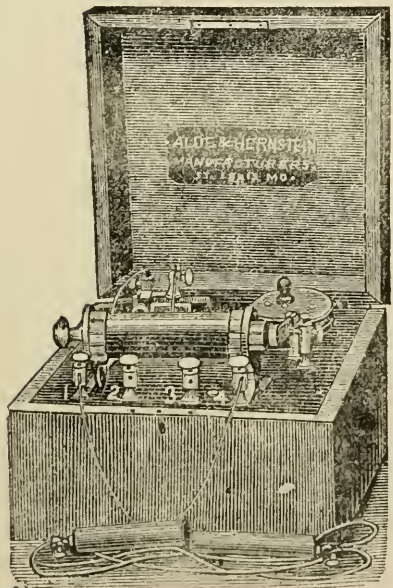

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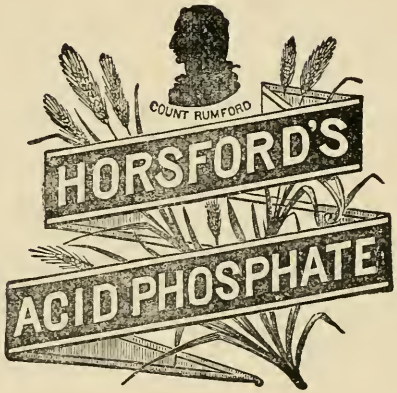

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Original Contributions.

Article XLVII.

Syndectomy as the Treatment for Pannus.* By Flavel B. Tiffany, M. D., of Kansas City, Mo.

Gentlemen; I beg leave to call your attention to the operation of syndectomy as the treatment for pannus. I would also suggest it as applicable to xerophthalmia, symblepharon, and episcleritis.

In Pannus I think that I can safely affirm that syndectomy yields the most satisfactory results of all the different modes of treatment yet used, which assertion I shall endeavor to corroberate by statistics taken from actual practice. In pannus we have vascular opacity of the cornea due to the formation of a neoplastic layer of cells beneath the epithelial layer of the conjunctiva, as well as beneath the first lamina of the cornea. In these new layers blood vessels are formed and vascular networks are developed. The superficial network consists mostly of veins formed by the vessels of the conjunctiva, while the deeper is mostly arterial.

The most frequent cause of pannus is trachoma. In this disease we have a hypertrophy of the papillae and trachoma glands of the palpebral conjunctiva, more especially at the retrotarsal folds and at the canthi. The course of trachoma is usually very protracted, extending over many months and years even, and though improved by treatment is very liable to relapses which may occur again and again, leaving the eye each time in a worse condition than before and gradually giving rise to various complications, the most dangerous to sight being that of pannus. If the development of the granules is not checked, they may extend deeply into the stroma of the conjunctiva causing atrophy and a change into cicatricial tissue. The blood vessels become obliterated, the papillæ follicles as well as the meibomian glands become destroyed. These changes are more likely to take place at the retrotarsal folds which become contracted and tendenous, so that their free borders are shortened. They

* A Synopsis; with added data, of a paper read before the Kansas State Medical Society at Emporia, 1882.

are no longer allowed to spring into folds, but from their shortening pass directly on to the ball of the eye (Fig. 14. a.) and thus the folds or *cul-de-sac* become obliterated and a certain amount of symblepharon is produced. If the symblepharon is great, the lids cannot be closed and the movement of the globe is interfered with, and a certain amount of lagophthalmus is produced. From the obliteration of the glands of the conjunctiva, the normal secretion is destroyed and the surfaces may become rough and dry, thus we have xerophthalmia. On account of the atrophy and shortening of the conjunctiva the tarsus becomes incurved and we get inversion of the lashes and edges of the lids, (Fig. 14. b.) which complication still aggravates the already existing pannus by constant friction of the lashes and the edge of the lids against the cornea. Those of you who have had experience with these diseases, know how very obstinate they are to ordinary treatment. For inveterate cases of pannus Dr. Wells recommends, as a last resort, inoculation of the conjunctiva with virulent pus, as gohorrhœal pus, but at the same time he warns us against the dangers of this mode of treatment. Not only is there danger of suppuration extending to the different tunics of the globe resulting in pan-ophthalmetis, by the inoculation of this virulent virus, but there is also danger of inoculation of syphilitic poison, for in using gonorrhœal matter there is a liability of its being tainted with syphilis through a chancre, existing perhaps in the urethra where it is not observed by the surgeon. Besides, gentlemen, the results from this mode of treatment are by no means satisfactory and at best, it is a painful, disagreeable mode. Syndectomy if properly performed, I believe yields far better results in a much quicker time with scarcely any pain or discomfort to the patient, and besides it is in no way dangerous to the eye or to the constitution.

The operation of syndectomy consists in removing a band of conjunctiva together with the subconjunctiva about one-eighth of an inch wide, around the cornea.

My operation is as follows:

After anæsthetizing the patient, I separate the lids with a stop speculum, then with a fine rat-tooth forceps pick up the conjunctiva with the subconjunctiva and with my compound curved scissors (Fig. 10.) snip through both, one-eight of an inch from the margin of the cornea and extend the incision quite around the cornea as represented in (Fig. 12. b.) then with the iridectomy

knife dissect the detached band clean from the sclera up to the cornea, then remove the flaps cutting close to the cornea in short snips with flat curved scissors. (Fig. 11.) If there are any blood vessels remaining upon the sclera and extending to the cornea they should be severed with the iridectomy knife, care being taken not to cut the sclera.

AFTER TREATMENT.—Apply cold compress over the eyes for thirty-six or forty-eight hours, these compresses should be changed often. The patient should be kept in a dark room for a few days. A solution of atropia one to four grains to the oz. may be dropped into the eye once or twice a day. In making this operation we not only cut off the nutrient vessels to the cornea, and thus remove the blood supply to the pannus, but we accomplish still more for, by detaching the conjunctiva from the margin of the cornea, by virtue of its elasticity it slides back on the globe, reestablishing the retrotarsal folds or *cul de sac*, relieving the tension of the lids, and thereby correcting the entropion as well as the symblepharon and lagophthalmus. (Fig. 14, dotted lines.)

The band of removed conjunctiva is replaced in a few hours by a proliferation and exudation of conjunctival elements from the portions of the cellular layer of the conjunctiva not removed in the operation. This neoplastic band is formed in about twenty four hours after the operation, being independent of any granular process, and is therefore not of a cicatricial nature, but resembles the normal conjunctiva. Summing up; we find, first that the operation cuts off the blood supply to the cornea; second, it lengthens the conjunctiva and thereby restores the retrotarsal folds, removing the lagophthalmus and entropion; and third, it tends to restore the conjunctiva to its histological condition, by the new portion taking the place of the diseased, (Fig. 13).

As a proof of the good result of this operrtion, I will briefly mention a few of the cases upon whom I have made syndectomy within the last few months.

The first, Robert McC. from Clyde, Kansas, æt. 39, yrs. Irish descent, occupation, farmer, light complexion, blue eyes. When this patient first visited me, July 17th, 1881 he could only discern light with the right eye; with the left he could but count fingers. He was suffering with a good deal of photophobia and epiphora with phlyctenular keratitis.

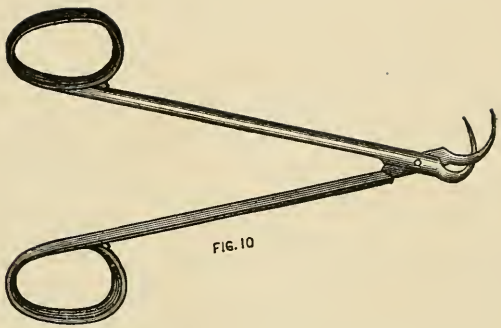


FIG. 10

Dr. Tiffany's Syndectomy Scissors.

FIG. 11

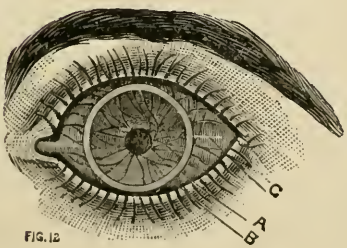


FIG. 12

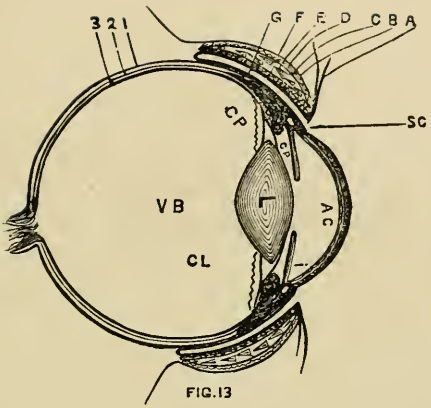


FIG.13

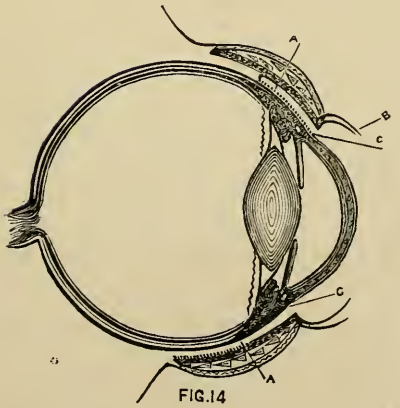


FIG.14

In two weeks after the operation he could see to make change; when he returned to his home. After one month he was able to read print (large), sight gradually improving.

CASE II.—Mary K., Burlington Kan., age nine years, American, brown eyes. This little patient had suffered from trachoma since infancy; in fact, she had ophthalmia neonatorum, from which she never entirely recovered, as the disease had been allowed to develop into granular ophthalmia with many of its complications. When she visited me Jan. 22nd, 1882, she was obliged to be led into the office; not being able to count fingers. The cornea was a mass of blood vessels, and the photophobia was so intense, she was wholly unable to tolerate a ray of light. She would sit with her face buried in her mother's lap most of the time, or else covered with her hands, and on any attempt to open the lids, a violent paroxysm of sneesing would ensue. The mother told me the child had never been able to open her eyes or raise her head, always being obliged to go with her eyes partially closed and with her head bowed. The operation relieved all these symptoms and the patient is now able to walk with head erect, eyes open and unprotected, and to-day, (March 26th) can see to read the finest print.

CASE III.—Charles L., of West Port Mo., light complexion, blue eyes, age forty-one years. This patient had had repeated attacks of granular ophthalmia, the last being brought on by working in the dust of a threshing machine, a year ago last autumn. At the time he first consulted me, Feb. 15th, 1882, he was obliged to be led about, only being able to see the outline of an object, as the hand, when passed between him and the light. In this case the eyes were blood-shot, the conjunctiva seemed to be a perfect net-work of engorged blood vessels, which extended over the cornea, completely obscuring the pupils of both eyes. I immediately made syndectomy.

To-day, (May 8th,) there is barely a trace of pannus left, some withered vessels remaining, (March 26th, 1883, the cornea is entirely free from vessels, and is clear and smooth) the diffused keratitis nearly cleared up, and the symblepharon is entirely removed; the ocular conjunctiva is clear and white, and to-day, (June 6th, 1882), his sight is nearly perfect. (March 26th, 1883, he can read the finest print).

CASE IV.—John F., of Colorado, age sixty-six years, Irish and German descent, blue eyed, was led into my office June 20th, 1883.

History as given by the patient: "In July, 1859, my right eye got powerful sore, and in a few days the left took the same way. The eyes swelled bad and run a good deal of matter, and the eyes have never been well since. For twenty-two years I have not been abe to see enough to read or write."

DIAGNOSIS.—*Pannus, symblepharon, leucoma, ankyloblepharon lagophthalmus and entropion*, besides an obstruction of the lachrymal ducts. All these troubles probably resulted primarily from purulent ophthalmia, which he most likely had in '59. Vision of the right eye, only perception of light; vision of the left eye, could count fingers dimly, six inches away.

TREATMENT.—In this case I made a modified syndectomy. Instead of removing a band of conjunctiva from around the cornea, I made the incision quite up to the margin of the cornea, for in this case I wished to retain all the existing conjunctiva possible, as the retrotarsal folds were nearly obliterated; the palphrebral conjunctiva being adherent almost up to the margin of the lids with the ocular conjunctiva, producing in the right eye a great amount of lagophthalmus (or inability to rotate the eye).

After freeing the conjunctiva from around the cornea, I divided the same on both sides from the cornea to the canthi, shown in (Fig. 12, c.) There being some ankyloblepharon, I extended the external incision through the orbicalaris, palpebrarum, thereby enlarging the palpebral opening. I then shoved the freed ocular conjunctiva back from the globe, folding it back upon the tarsal cartilage of the lids, as is represented by the dotted lines in fig. (14). For the entropion I made a deep incision from the punctum lachrymale to the external conthus near the margin of the lid, going through the conjunctiva and tarsal cartilage from within outwards. I also removed a section of integument from near the margin of the lids; I then slit up the canaliculi and relieved the obstruction of the ducts, by passing a probe into the nasal ducts.

The after treatment consisted in the application of cold compresses over the eyes for forty-eight hours.

RESULTS.—The third day after the operation the patient could

see to count fingers with either eye, several feet away, and could see to name objects in the room. After the fifth day he could see to find his way alone to and from the office, without difficulty. To-day, (March 26th,) he is able to read large print, (2 line great primer). The pannus is gone, the opacity of the cornea is clearing up, and the other complications are removed.

The cases reported are fair exponents of the results which I have obtained from this operation of syndectomy. Of the twenty-eight times (being the total number) that I have made this operation, I have not had a single case where there were any untoward results, and in all but one single exception the results have been most brilliant.

ARTICLE XLVIII.

REMARKS ON DIPHTHERIA. By E. BENKENDORF, M. D., of St. Louis.

The symptoms which we observe in this disease characterize it as a local or general affection. As long as the pathological condition is solely confined to the throat and merely reacts upon the system by producing signs of exhaustion, we may look upon diphtheria as a local disease. When, however, the general debility has become complicated by the appearance of albumen in the urine, we have proof that the general system is infected by the poison that produced the local affection, or is infected from absorbing the poison which is generated in the throat.

Another grouping of the different cases of diphtheria may be chosen by speaking of the latter as a catarrhal, or as a genuine diphtheria.

The catarrhal variety is a simple catarrhal affection of the throat, superadded to which there are a few diphtheritic patches generally to be found imbedded in the outlets of the excretory ducts of the tonsils. These patches do not so very tenaciously adhere to the mucous membrane, and can readily be removed by scraping with a suitable instrument. This kind of diphtheria yields to mild treatment, and has no doubt, established the great

reputation of chlorate of potash. A spray of warm water at the same time will remove the catarrhal secretion and with it the diphtheritic patches.

The genuine diphtheria, on examination, shows the throat to be covered with sticky false membranes, often even extending below the pharynx. The weakness of the heart is very marked and the difficulty of deglutition is seldom caused by tumefaction, but more often by enervation and the want of healthy secretion.

CAUSATION.—We know of no remote or immediate causes operating from without or within in such a way upon the individual as to change his physiological condition in such a manner as to produce the local pathological condition of his throat. We must therefore accept the local condition of the throat in itself as the cause of the disease, and explain it as being produced by a deposition of "bacteria," on the mucous membrane of the throat. Naturalists have given the name of "bacterium" to a little animal germ floating in the atmosphere. What conditions of the air are necessary to favor the increase of these germs is not known with certainty though a want of ozone is held by some observers to be responsible for it.

PROGNOSIS.—All cases of genuine diphtheria do not warrant a positive prognosis at the commencement of the disease. The constitution of the patient can only negatively and not positively contribute to the recovery of the patient and *caeteris paribus*, the strong and the weak have the same chances of recovery.

The immediate cause of death is found to manifest itself in the weakened action of the heart. This debility cannot be sufficiently kept in check by nourishment or stimulation and therefore the skill of medical art must be employed, to get rid of the local infection with due reference to the removal of all adventitious causes of debility, and if possible we must add to the general inervation by appropriate therapeutic measures.

CONTAGION.—Regarding this, it is well to remember that genuine diphtheria of one person may infect another person so as to produce the catarrhal variety and this latter affection may be the cause of inflicting genuine diphtheria upon some one else.

THERAPEUTICS.—Every year brings new remedies or establishes the trustworthiness of one remedy over another one.

Antiseptic remedies of a local and general application, combined with stimulation, form the basis of the treatment of to-day. Anti-inflammatory treatment has fortunately been discarded and it will be difficult to prove that quinine in large doses can do good, although it may be proven to do positive harm if the asthenia of the heart is considerable.

LOCAL REMEDIES.—1. Warm water. A spray of very warm water every few hours is sometimes followed by softening of the false membranes and improved condition of the mucous membrane. Its stimulating influence can also impart itself to the whole general system.

2. The application of ice and cold water must be regulated by the amount of warmth and vascularity in the neighboring parts of the throat. I would consider it an open question, whether ice could have a direct destructive influence on the life of the bacteria.

3. Local application of salicylic acid.

4. Spray with pilocarpine once to be used at the commencement.

5. Carbolic acid either alone or in combination with other antiseptics.

6. Papain.—This is comparatively a new remedy and is said to possess the quality of dissolving human flesh and membranes in a short time. A solution of papain or vegetable pepsin will destroy diphtheritic membranes, sometimes in a few hours. It is asserted by French physicians, that papain will not only dissolve the false membranes, but also prevent their reformation.

7. Solution of manganese is an old remedy and has found new defenders.

GENERAL REMEDEIS.—1. Carbolic acid.

2. Listerine.

3. Benzoic acid and its salts.

4. Cyanide of mercury. It is well known that mercury destroys low animal life. As it becomes absorbed and is excreted in the mouth, it may be ranked, not as a general remedy, but as a local poison to the bacterium.

5. Oil of turpentine in large doses. Cures by the same, must be ascribed partly to the great amount of oxygen which this oil has the power of absorbing whilst exposed to the air also partly to the alterative power it is known to exert on mucous membranes.

6. Manganese.—This remedy must be classed with the preparations of iron.

7. Pilocarpine.—This is one of the most interesting new remedies, the immediate effect of which is salivation, diaphoresis and diaresis. It is used internally and also subcutaneously. Gutmann, a few years ago, recommended it as a specific against diphtheria. Later observations have not proven this laudation, but the efficacy of the remedy has sometimes been proven in my own practice. It is wrong to prescribe it in a case accompanied with great debility of the heart, for pilocarpine is known to produce, sometimes, great debility of this organ. At the same time it is encouraging to know that the debility of the heart, produced by pilocarpine, will in a very short time, subside, if the heart was not previously debilitated from the effect of the disease. The physician may make his calculation accordingly.

PRIVATE OPINION.—I am in favor of giving such internal remedies as can be given with impunity, in sufficiently large doses as to act locally on the throat during the act of swallowing. Boiled milk and warm beef tea with sherry wine, ought invariably be administered from the start.

Translations.

Article XLIX.

FROM THE FRENCH.

A Ready Method of Obtaining Local Anæsthesia. By Dr. Cheize. [Translated from the *Jour de Med. et de Chir. Pratique*, for the Journal.] By S. Pollak, M. D. of St. Louis.

Among the difficulties which surgeons in this country frequently encounter, and must promptly overcome, is the paucity of surgical instruments and appliances. The want of a Richardson atomizer I had recently to supply in the following manner:

A young girl presented herself with inverted toe nails and solicited an immediate operation i. e. extirpation. I imbibed with ether a piece of cotton wadding of the sixe of five francs, and placed it upon the big toe, and with a common hand bellows, I blowed on it for a few minutes, until complete evaporation had taken place. I saturated the cotton wadding a second time, and again manipulated the bellows. In less than five minutes, anæsthesia was complete. I extirpated the ingrown nail, and applied to the matrix the actual cautery without the patient experiencing the least pain. I had to exhibit the extirpated nail in order to prove to her that the operation was performed. This is an anæsthetizing apparatus of the greatest simplicity, and within reach of any one. Is it new? I do not know. It is certainly very simple. Country practitioners may find it of great value.

Biology.

Relative modifications, which divers destructive agents, physical as well as chemical, exercise upon the systematic *chardou* or *mitzbrand*. The resistence of the dry virus is very much greater than that of the fresh or moist virus, and the virulence of the culture of bacteria is not always dependent upon their mobility; these can almost remain harmless, even if yet so active and lively, by pouring a certain quantity of eucalyptus upon them. Putra-

faction and cold are without effect upon the microbes. Whereas a temperature of 80° for two hours, or of 100° for 20 minutes will utterly annihilate the activity of bacterian virus. The inequality of resistence of dry and fresh virus is still more manifest when either is brought in contact with antiseptic substances. Dry virus at 32°, and therefore richer in spores, remits liquid such as camphorated or phenoled alcohol, or oxygenated water, quick lime, borax soda, sulphurous acid, or vapor of chloroform. The most energetic agents are: corrosive sublimate, nitrate of silver, and phenic acid. They kill the dry as well as the fresher moist virus, the latter can also be affected by permanganate of potass, chloral and essence of eucalyptus.—[*Progres Medical.*

RELATION OF THE SYMPATHETIC GANGLION TO VASO-MOTOR NERVES.—Morat demonstrated the presence of vaso-motor centres in sympathetic ganglions. The inferior cervical, and the first thoracic glanglion receive constricting and dilating nerves. The first are furnished by the medulla, and the second by the eighth cervical and the first dorsal pair. Experiments have plainly shown the action exercised by the constricting and by the dilating nerves.—[*Progres Medical.*

NERVES USED FOR LIGATURES OF BLOOD VESSELS.—In nerve tissue has been found a substance more resisting, less brutal, and quicker absorbed than catgut ligatures. The carotid of a horse and of a dog has been ligated with the sciatic of a calf. At the autopsy, the occlusion was complete. The artery was strangulated, not cut, and the nerve completely absorbed. The neurilemna gives it all the necessary resistance, and the coagulated mycline allays the ligature.—[*Lyon Medical.*

POISONED BY CHLORAL.—One ounce of chloral hydrate dissolved in water was administered to an epileptic. In five minutes the patient was profoundly asleep. As soon as the error was recognised the stomach pump was employed and strichnia and alcohol injected. But it seems the larger part of the chloral was already absorbed.

Sleep lasted 48 hours without any other outward symptom. On the third day a general scarlatinous rash appeared. The bucal mucous membrane was very sensitive for a long time. The epileptic seizures were less frequent after that.—[*Ibid.*

Clinical Lecture.

Article L.

Extracts of Clinical Lectures Delivered by Edw. Borck, A. M., M. D., Prof. of Surgical Diseases of Children, and Clinical Surgery, College for Medical Practitioners of St. Louis, Mo. [Reported for the Journal by H. Marks, M. D., of St. Louis, Mo.]

Gentlemen: Here I present to you a little girl six years old. The mother gives the following history: When the child was about nine or ten months old, the mother thought there was something wrong with the baby's arm; she sent for a physician who examined the baby and he pronounced it a dislocation of the shoulder joint, and attempted to reduce the same, without success, working with it for more that one hour. He labored so hard that the sweat broke out upon his brow, running down his face and beard, and thus exhausted himself and the baby; the cries of the latter were most pitiful. I am not able to tell you whether the doctor's sweat was produced by the hard work that seemed to be required to reduce this child's dislocation or through some other cause, at any rate he gave up the job, with the remark that, such a hard case he never encountered before, not even in Vienna; prescribed some medicine internally and left the patient to its fate. The arm did not improve; a good deal of inflammation set up, other doctors were consulted from time to time, liniments were applied, etc. At last some physician diagnosed paralysis, and promised a cure by electricity; it was faithfully tried, but without any benefit whatsoever.

Now you will observe here, that the right arm is pending loosely down the side of the body; that the posterior side is anteriorly; the fingers are not contracted, she used them and the hand and the forearm to some extent; the arm is atrophied, the upper arm the most so. In taking hold of the arm, you see, I can make passive motion in all directions with ease; the child is otherwise healthy.

Now, we may think, upon first sight, that we may have here a case of infantile paralysis before us, but by closer inspection we will observe that this arm is somewhat longer than the one on the other side of the body. We will also observe the flattening of the shoulder, the contour presenting the appearance of a dislocated shoulder. If I now run my finger along and below the spine of the scapula outward, I can reach the head of the scapula; I can also feel the relaxed capsula ligament, to which the upper end of the humerus is attached.

Through the weight of the arm, the capsula ligament became elongated. You also see that I can bring the arm into its natural position with the greatest ease, reduce the same and then the flatness of the shoulder disappears, and the natural roundness and fullness is reproduced, but it will not remain so; if support is removed it immediately drops again. Running my finger over the clavicle, I find here a distinct elevation, an overlapping of the bone, telling me that some time during this child's life there must have been a fracture of the bone.

Now, I wish you all to come forward, one at a time, and examine this patient carefully and closely. This one case will teach one more than any text-books can do; practical observation makes one expert. Feel the upper extremity of the humerus in particular, and notice its shape.

You having all examined the patient, what is your diagnosis now? Answers, a non-reduced dislocation.

This is exactly what I expected the answer would be; it comes near to it, for many of the symptoms are present.

But I beg leave to differ with you, and will say that I believe there never was a dislocation, and for the following reasons: We can feel the upper extremity of the humerus through the surrounding capsular ligament, but its surface is flat and rough; that smoothness and roundness which characterize the head of the humerus is absent, the ligament is stretched, and has become elongated by the weight of the arm, and feels like a rope. We can twist and turn the arm in any direction. We can also feel the head of the scapula but the glenoid cavity is not distinct.

If we now remember that ossification does not commence before the second or third year, and that it is not before the fifth year that the centers of the head and tuberosities become joined, to form a single epiphesis, and that these do not become united until the twentieth year, and that previous to the beginning of

ossification the extremity is but cartilaginous. We can readily understand how easy such a joint may be disturbed and permanently injured, at the tender age of nine months.

From this I judge that originally there was but a separation of that part of the epiphysis that forms the head, and which by inflammatory process, was completely absorbed.

What can be done for this patient? very little! however, I shall have her brought back again and I will try to devise some kind of apparatus to support her upper arm in such a manner that she may have a better use of her forearm and hand.

Here is another little girl, also six years. You see it is a pretty and intelligent child. Now observe how she walks; also take a good look at her right arm. The history is this: When about one year old, the child was paralysed, "hemephlegia" without any preliminary sickness; generally the upper extremity recovers nearly perfect, the lower hardly ever; in this case the arm never recovered. You see the position of the arm, how it is pending down the side of the body; like in the first patient, the posterior surface is turned anteriorly; but notice, the fingers are contracted, she has no use of them. Now, look at the shoulder, it has its natural contour, though the whole limb is atrophied and cold. The leg is also atrophied, but not to such a degree in comparison to the arm; why? because the leg has been put to use in the best manner possible. You see there is a Talipes Equinus, and also a Glenu recurvertur, the manner in which these deformities are produced, I have already explained my theory to you in my lecture last Tuesday.

The guardian states that everything has been done for this child, in the way of internal and external treatment; a large number of physicians have been consulted, and here is the result: "There is nothing in our possession that can bring relief." A change of climate was also recommended and taken advantage of, without a particle of benefit.

There is one point I would like to call your attention to: the lady remarked that the majority of the doctors consulted, consoled the parents with the prescription that the child will outgrow it in time. Such statement, no doubt you have heard in your practice, and I hear it over and over again.

But let me tell you, no one that is acquainted with this hor-

rible disease, would make such a statement and thereby reflect discredit upon himself and deceive his patient.

No internal treatment is of any use; the mechanical treatment is the only means that may bring some relief through the agency of support, and if employed, employ it early. Follow not the erroneous idea—to wait until the child is a little older, and thereby lose all the advantages that nature has placed at your disposal. Never neglect to examine the knee and hip joint whenever a patient with deformed feet calls upon you for advice. The reason for this precept, I have fully given you before.

[TO BE CONTINUED.]

Proceedings of Medical Societies.

Article LI.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday March 10, 1883.

Dr. Dean.—I have a specimen here which may interest the members. This is a specimen of aneurism of the aorta. The patient was a sawyer or raftsman. He entered the hospital on October 24, 1882, to be treated for malarial fever. He said that while cutting the pickets, he had suddenly felt a pain in the abdomen. Upon examination at this point, a rigid tumor could be felt in the left side. He improved under the use of iodide of potassium, and left on November 13, against our advice. He was admitted again on the 15th of December and in the afternoon was delirious, and he had violent muscular spasms. He left again on the 21st of the same month and was admitted again on the 27th. He left again, against our advice, on February 11th, and returned on the 18th. On March 8th, he died and the post-mortem showed that there were two aneurisms, nearly connected, of the aorta. In the upper or smaller one, of which this is about one-half or two-thirds, was a clot about an inch in diameter, it rested on the ninth and tenth dorsal vertebræ. The other aneurism, which contained this large clot, was on the bodies of the twelfth dorsal and the first and second lumbar vertebræ. It involves the cœliac axis. The right kidney was small, the left being much larger; this, I suppose might be accounted for by the compensatory action. The other specimen was taken from a patient who was admitted to the hospital and gave the following history of his trouble: About eighteen days before, while eating hash, he swallowed a piece of bone, and after that time he had pain upon swallowing, so that he was unable to swallow solid food. He was admitted in the evening, and in the morning he vomited some blood. Upon a slight effort he would vomit a large quantity of blood. I gave him water to swallow and ausculated the œsophagus. I could hear a little gurg-

ling by placing my ear between the shoulders; but could detect the presence of no hard body by the use of the whalebone bougie. The patient died, and on making the post-mortem, it was found that the bone had caused an ulceration of both sides of the œsophagus about an inch above where the left subclavian artery is given off. The ulceration did not pass quite through the œsophagus on the right side, but on the left side and very near the subclavian artery it was penetrated. We could not find the bone anywhere. It is possible that the blood drove the bone back into the alimentary canal. At any rate we did not find it. The specimen shows the ulceration.

Dr. Pollak.—How long after the injury was it when you first saw him?

Dr. Dean.—He said about eight days after he supposed he had swallowed the bone.

Dr. Dickinson.—Did he suffer any pain?

Dr. Dean.—No; nothing remarkable.

Dr. Johnston.—Was there any venereal taint?

Dr. Dean.—Nothing that we could detect?

Dr. Porter.—I am sure these cases are complete in themselves. I never hear of a case of aneurism of the abdominal aorta without recurring mentally to a case I saw on the post-mortem table—or rather just previous to the post-mortem. I was called suddenly one night to see a gentleman who had fallen dead on Washington Avenue, near where my office was. I could gain very little information from the family except that he had at times great pain in the back, and had been treated in New York, for some disease of the nervous system. By means of a careful examination this physician had diagnosed some irritation or injury or some inflammation of the spinal cord, and for that the patient had been treated a long time with some relief of his symptoms. The post-mortem showed a large abdominal aneurism; it was of great extent, and had destroyed the bodies of the last two dorsal vertebræ, I think. I don't remember the exact anatomical position, but I believe it was the last two dorsal, and there was some pressure upon the spinal cord. The specialist in New York has found the complication but had not found the cause of it. He had not found the aneurism which produced the

pressure and irritation of the spinal cord. It was a most interesting case, and one that teaches us this lesson: that although we may find the local lesion, we should look carefully for the cause. There was trouble in the spinal cord which was relieved by local treatment to some extent, and yet the case of aneurism doubtless caused a well marked bruit, which might probably have been detected on careful examination.

DR. LAIDLEY.—I saw the case that Dr. Porter referred to. The case was treated by a prominent physician in this city, for hypochondriasis, involving a good deal of trouble on the part of this doctor, because he had told the patient's wife there was no danger in the case at all; that nothing would grow out of it.

DR. JAMES.—The instrument that the specialist used was a surface thermometer, a very valuable instrument. My attention was called to the value of the instrument by that case.

DR. BLOUNT.—I wish to ask the speaker if I understood him to say that the special trouble was diagnosed by the use of a surface thermometer?

DR. JAMES.—Yes, sir.

DR. BLOUNT.—Will you please explain how that is done. I don't understand how he did it.

DR. JAMES.—He diagnosed it by the slight rising of the thermometer at that point, there was a slight elevation of temperature.

DR. JOHNSTON.—Henckler, it will be remembered, first demonstrated the value of the thermometer in all cases of local inflammation, so that we may not be deceived in examining the surface with a thermometer. For instance, we may have a case of coxalgia, and the pain is not near the seat of the trouble. Henckler demonstrated, twenty years ago, that by the use of the thermomoter we could determine the site of the inflammation. The point of irritation is indicated by the rise in the temperature. Thus we are not deceived by the local pain which may be one place and the disease at another, as is in the case of coxalgia.

DR. DEAN.—Some years ago a gentleman in New York, who had that hobby, wrote a work on indications of the thermometer. I had occasion to try his instrument and found that the weight of the instrument itself, when placed on the surface, would raise the mercury a half a degree, a very little pressure making the mer-

cury rise. I think that unless the instruments were very accurate, and so made as to guard against pressure, their own weight on the surface would render the indications very fallacious; and I think that comparatively few of these surface thermometers are made well. They will not agree with each other. There certainly must have been a great many mistakes made on the strength of bad thermometers.

Dr. James.—I think it is an easy matter for the person using the thermometer, to guage it by a little care. Of course, the mercury would rise if he used any pressure, but that would only be a certain amount, and this could be subtracted from the temperature of the body. It seems to me that that would be no objection. I am satisfied that pretty much all the thermometers that are purchased in the stores are incorrect, and have to be seasoned; the glass itself in the surface thermometer, shrinks and alters and changes, so that there may be a difference of a half a degree, after keeping it a few months. This is so evident that some instrument-makers season their thermometers; they keep them a certain length of time before they grade them, in order that the changes may be taken into consideration in grading. There is no difficulty in making an instrument sufficiently correct for all ordinary purposes.

Dr. Dean.—I have had some experience in this matter of thermometry. A gentleman went to one of the foremost instrument-makers in New York, and asked him if he could make him a perfectly accurate thermometer. He was told that it could be done. He then asked: "What will you charge for it?" The instrument-maker said, "thirty or forty dollars." The gentleman said, "make two." The instrument maker replied, "I won't do it." Some years ago I went to an instrument-maker and told him to make me two correct Hicks' thermometers; and they said they couldn't make them; however, I had one made, and when my instrument came, it was one-tenth of a degree too low through the whole scale. Sometimes they are too low at certain points, but this was too low throughout the whole caliber. My thermometer was certified to as correct and yet it was a tenth of a degree too low. From my experience I am satisfied that not one-third of the thermometers in use are correctly seasoned. The best instrument-makers keep them two or three years before grading them at all.

DR. JOHNSTON.—The last gentleman has used an expression that I cannot understand: that pressure increases the temperature, that pressure upon the thermometer would cause an increase of temperature, and I would ask an explanation of the expression used.

DR. DEAN.—The bulbs of most thermometers are made so thin that it is not safe to press them; a thermometer is injured by pressing the bulb; and in these surface thermometers where the bulb is almost as thin as tissue paper, you will find that by pressing upon the thermometer you will drive the mercury up the small column.

Excision of the Astragalus for Compound Dislocation and Fracture. By A. H. Meisenbach, M. D.

The subject and case presented for your consideration this evening, *Excision of the Astragalus* for Compound dislocation and fracture, is one although not rare in medical literature is one not of common occurrence, and forms one of many a class of cases which present points of great interest to the surgeon, as well as to enlist his most earnest solicitation when the emergency calls upon him to treat such a case.

CAUSES.

The astragalus may be completely dislocated from its articulations with the tibia and fibula, scaphoid and calcaneum, forming the double dislocation of Malgaigne, or the astragalus may be dislocated from the scaphoid and calcaneum, retaining its connection with the tibia and fibula, forming an astragalo-calcaneo scaphoid, or that termed sub-astragaloid by Malgaigne.

The latter dislocation (astragalo-calcaneo scaphoid) is the form of dislocation for which I excised the the astragalus including the external and internal malleolus (commonly called ankle). Taking into consideration the anatomical relations of this bone, bound in its articulations to the surrounding bones by strong ligaments additionally strengthened on all sides by numerous tendons and their sheathes, it will therefore be easily understood that it will take a great amount of violence to disturb these relations and sever it from its articulations.

The force most usually productive of these injuries is that produced by falling from a height and striking upon the bottom

of the foot, accompanied by violent abduction adduction, flexion or extension, thus producing a dislocation inwards, outwards, backwards or forwards.

Diagnosis.

This accident, especially when compound and complicated can be very easily recognised, when simple it is more difficult, nevertheless the lateral deviation of the foot together with the great prominence of the parts is enough to indicate its true nature.

Prognosis.

According to Hamilton, "Owing to the great violence that is necessary to produce this injury, and without taking into consideration any unusual complications under the most favorable circumstances intense inflammation may be anticipated, and with few exceptions this has taken place. When reduction has been promptly and easily effected inflammation, gangrene and death have speedily taken place. But more often reduction has been found impossible, and complete removal of the bone or amputation has been immediately demanded."

The following synopsis of a case by Morris of Philadelphia, 1831, shows the imminent danger to which the life of the patient may be exposed in cases apparently most simple:

"W. S., admitted to Penn. Hospital for dislocation, outwards, the skin was not broken nor excoriated, but redened. Drs. Barton, Harris and Hewson attempted reduction without success. The astragalus was excised. Foot placed in fracture box."

"On the 5th day slough began to form on outside of the foot. On the 13th day opening was made to excavate pus near malle olus. At the end of eight weeks caries of bones of tarsus. Fifteen Months later the patient was suffering from hectic, with extensive disease in bones of the tarsus and ankle joint. Amputation performed and a few days later death resulted."

Here we have a case presenting the most simple form of this injury, no laceration of soft tissues, only a displacement of the bone, yet so complete as to baffle reduction without the most heroic of all measures, the use of the knife. But what a direful result! What an amount of suffering which ultimately ended in death.

Yet let me remind you that this was before the day of antiseptic surgery and I believe that under the present mode of

treatment the result would have been far different. We see therefore, that under the most favorable conditions there have been serious complications. The proness of the parts to slough, even after reduction has been effected, making the ultimate success doubtful.

The sub-astragaloid dislocation is produced by the same causes and subject to the same complications and prognosis as already given. Hamilton relates two cases of simple sub-astragaloid dislocations, in which the dislocation could not be reduced. Subsequent sloughing took place, the bone protruding. In both the bone was removed, In one after seven months of suffering with recovery. In the other, amputation was finally necessary.

From the history of this class of injuries it seems therefore perfectly justifiable for the the surgeon to remove the bone even in simple dislocation. And gentlemen, in a case of this kind if the dislocation did not yield to moderate force, I should unhesitatingly excise the bone rather than take the chances of sloughing and its doubtful train of symptoms.

In compound dislocation and fractures, excision and amputation are proper. Of course excision is at all events preferable if the channels of circulation are intact.

CASE.—Mr. S., æt. thirty-eight, foreman in a large wooden ware factory, on the 1st day of September of last year, stepped out upon an elevated platform; the plank upon which he stepped being unsound, gave way, precipitating him to the ground beneath, a distance of twenty feet. He fell, striking the bottom of his foot in such a manner as to produce an astragalo-calcaneo scaphoid dislocation and fracture, compound inwards.

I saw the patient, within an hour after the accident, at my office. The foot was everted. The astragalus and internal malleolus protruding through the wound two inches in length The protruding bones were so firmly impacted in the wound, and tendons so tightly stretched over the protruding bones, that it was impossible to make an attempt at reduction; I was also satisfied that the posterior tibial artery was severed, and therefore apprehensive that any attempt at forcible reduction might sacrifice the remaining channels of blood supply, the anterior tibial and perineal arteries. It was obvious also that operative measures must be done without delay, for swelling of

the parts would also endanger the integrity of the member, cutting off the vascular supply by strangulation.

My friend, Dr. Saunder, who kindly came to my assistance, was also of the same opinion. The Doctor administering the anæsthetic, I proceeded to excise. I carefully severed the internal lateral ligaments and the remaining ones, but still I could not remove the bone on account of the tension of the tendons that were stretched over it, but by severing a few fibres at their attachment, and getting a hook under them, I was enabled to slip them over the bone out of the way. With a few additional sweeps of the scalpel, I removed the bone. I now found that the inferior surface had been fractured, corresponding to the region adjacent to the astragalo-calcaneo articulation. I removed this also. I then sawed off the internal and external malleolus, beginning about one-fourth inch above the articulation. I next made a counter opening over the external malleolus longitudinally, about three inches in length. First, for drainage. Secondly, so that I would gain room through which to remove the superior articular surface of the calcaneum; my object in doing this was to obtain a corresponding cut surface of bone to which to approximate the cut surfaces of the tibia and fibula, thereby aiming at a better result, should stiffness or ankylosis ensue (the latter result, I anticipated,) than if I approximated two uneven articular surfaces, such as the superior articular surface of the calcaneum and articular surface of tibia and fibula.

I found it a very difficult and tedious operation to remove the articular surface of the calcaneum, having to pass the saw through the openings over the internal and external malleoli, for on account of the deep seatedness of the bone, I could not turn it out (evert it), and furthermore, having to be extremely careful not to lacerate the surrounding tissues. I removed about an inch square of the articulating surface.

Reviewing the operation at this stage, I found that I had an appalling wound through which a doubled fist could be pushed, the foot only attached to the leg by two thin isthmuses of soft tissues, one posteriorly and the other anteriorly.

I packed the entire cavity of the wound with iodoform, using perhaps ʒj.-ʒij., and then introduced sutures and drainage tubes into both wounds on each side, using two drainage tubes at the internal malleolus and one at the most dependent portion of the external maleolus.

The wounds closed I placed several layers of carbolized gauze, into which iodoform had been rubbed, over the wound, encircling the foot. I now applied a posterior plaster of paris splint (as shown in drawing). When plaster had set I placed Lister's dressing over all, and over this an additional plaster of paris casing. Had the patient taken home, placed the limb in an elevated position and ordered one-fourth grain morphia *pro, re, nata*, every two hours.

Sept. 2nd, 8 A. M. Found patient pretty comfortable; pulse 92; temperature 100.—7:30 P. M. Pulse 96; temperature 101°; ordered bowels to be opened and prescribed a diaphoretic mixture.

Sept. 3rd, 9:30 A. M. Pulse 92; temperature 100°.—8:30 P. M. Pulse 92; temperature 101°.

Sept. 4th, 9:30 A. M. Pulse 80; temperature 99°.—8:30 P. M. Pulse 88; temperature 100°.

Sept. 5th, 9:30 A. M. Pulse 88; temperature 98°.—8:30 P. M. Pulse 88; temperature 98°.5.

Sept. 6th, 9:30 A. M. Pulse 80, temperature 98°.—8:30 P. M. Temperature 100°. After Sept. 6th, the pulse and temperature normal.

Sept. 9th. Chipped off outside plaster casing over site of the wounds. Found considerable discharge in the dressing, but free from any odor. Wounds looked very well. No swelling of the lips or adjacent parts, neither was there any swelling of the foot at *any time* during the whole period of treatment. I took out the sutures, removed the drainage tubes and washed out the wound with carbolized water, reinserted drainage tubes and reapplied iodoform dressing, and over this a modified Lister's dressing.

Placed the leg in swing suspended from the ceiling, in position shown (leg flexed with heel at most dependent part). This position, as will be readily seen, affords the most perfect drainage and lessen considerably, the danger of sacculating of matter in and around the wounds. Although this position was a little trying to the patient at first, he gradually became accustomed to it, and was very comfortable during the rest of the treatment.

Sept. 12th. Took off the dressings and found the wounds in good condition, discharge much less. Dressed the wounds twice a week and found no occasion at any time to change the plan of treatment.

At the expiration of about four weeks, I took the external plaster shell off on account of its becoming very loose, leaving the plaster splint in situ without disturbing the parts, binding it down by an ordinary roller bandage. The wound over the external malleolus had also closed.

The wound over the internal malleolus was much reduced in size.

There was very little necrosis of soft parts. I removed a plug of adipose and cellular tissue about half the size of one's thumb; neither was there any exfoliation of bone from any of the cut surfaces.

I gave the parts utmost rest, not using the probe to find out the condition of the bone. I consider the temptation to use the probe in granulating wounds with bone at the bottom or in cavities, a most pernicious habit, and one oftentimes productive of a great deal of harm, which latter fact, Hilton so admirably proves in his valuable work on "Rest and Pain."

Wherein he quotes numbers of cases where caries and necrosis of bone existed in joints and elsewhere, that were continually kept irritated by probing, and healing prevented, which, as soon as placed in proper position for rest and being left alone, speedily improved and were cured.

The posterior splint I took off, at the lapse of ten weeks when the wound had completely healed over the internal malleolus. At the closing stage of healing I frequently used nitrate of silver to expedite contraction and cicatrization of the wound. From this time on I had the patient gradually use passive motion and bear weight on the limb, so that at the end of four months after the accident he was enabled to walk by use of a cane. And now, six months after the accident, he has good use of his limb with 3-4 inch of shortening and at least 2-3 of original amount of motion.

The patient wears steel braces at the ankle but only as a means of protection at his work; for the work necessitates his crawling over and working between logs and in positions where the foot is liable to get a twist.

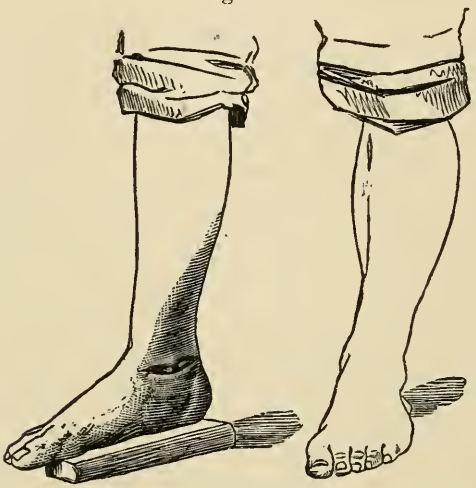
I will now for a moment consider, gentlemen, the main features of this case, and the points upon which the successful result, as shown you in my estimation depends.

1st. My patient being in the prime of life with an excellent constitution, and always having led a regular life. This gentleman

is the rock upon which success in surgery must have its foundation, without it the greatest skill is shipwrecked.

2nd. Performing the operation immediately; before inflammatory action had begun; for as already stated by Hamilton, we may in the most favorable cases expect a high grade of inflammation, and an analysis of cases of excision of the astragalus

Fig. 9.



The Cut (after photograph) shows the amount of shortening and position of wound over internal malleolus.

shows that the best results have been attained where it was done immdiately. Also I think the method of performing the operation cutting off the malleoli and articular surface of the calcaneum, this brought the parts more nearly in apposition, allowing a more perfect moulding of parts together, and the greater surface presented for granulation, afforded greater activity in development of fibro-plastic material.

3rd. The perfect adaptation and complete immobility of the plaster-paris splint, I think gentlemen also an important factor.

I think, that the value of plaster paris splints in surgery is well recognised, and nowhere are they of greater value than in excision and resection of joints. The constant tendency to move and shift of other forms of dressings on account of not being exactly moulded to the parts, I think oftentimes accounts for the want of success in these cases.

4th. The complete antiseptic condition of the parts I believe

is one of the most essential elementsin in the treatment, and to it a good share of the successful issue must be accorded. Here I would state that iodoform is the most powerful antiseptic that has been discovered, and that its general range of application is more extensive than any other at present at our command, notwithstanding the fact that its free use in large quantities, especially in cavities has in many cases developed toxic symptoms, yet this I consider of minor importance when compared with the immense value its use engenders, for this can be said of other potent remedies.

Dr. A. von Mosetig Moorhof, No. 211 *Volkman's Sammlung Klinischer Vorträge* in the resumé of "Der Iodoform Verband" amongst other makes the following statement: "Iodoform is such a powerful antiseptic that it needs not the previous application of other antiseptics for cleansing purposes. That the mere ablution of the parts with water is sufficient previous to its application." (and I do not even consider this essential. Cleansing the parts from all discharges with absorbent cotton and then applying the iodoform dressing, is a practice which I am in the habit of pursuing in the greater part of my cases and I get satisfactory results from this method.)

The author quoted furthermore states that "iodoform is the cheapest, surest, most enduring and easiest of application of any known antiseptic, and applicable to regions that are difficult of access, such as oral cavities, rectal region etc. Anyone having any experience in its use, can, I think, say "amen" to these facts; yet, not long ago I saw a statement wherein a party undertook to say that the only thing iodoform was good for was its smell. All that I can say in reply to such a statement is that the party did not know what he was talking about.

Thanking you, gentlemen, for your considerate attention, I hope that you can unite with me in thinking that this case adds another small leaflet to the laurel wreath of triumphs that decks the brow of Antiseptic Surgery.

DISCUSSION.

Dr. Dean.—Knowing that the doctor's paper would be read to-night, I hastily put in my pocket an astragalus I removed two years ago. Soon after we had two cases, in one of which there was a dislocation outwards which we were able to reduce. The young man from whom this specimen was obtained was the

son of a lady who had charge of a ladies school in Connecticut, and she wrote to a good many people, so that we were a good deal bothered by this one and that one coming, finally she wrote to me to give her an exact account of the man's injury, condition etc., which I did. I received no reply, and I suspected that the young man's parents were troubled. At last she wrote me that she had consulted the leading surgeons in the town where she lived who told her that if we had done as we ought to, and cut the man's leg off, he would have been well and out of the hospital inside of six or seven weeks. We got this man transportation and allowed him to go home to let the doctor cut his leg off. Five or six months afterwards I heard from them that he was able to walk and was getting along nicely.

Another case in which I was not so fortunate, was that of a man who was hurt by a railroad, in which there was a dislocation and fracture. I removed the astragalus and part of the malleoli; this man was with us something like a year, and was doing very well. He had been a hard drinker and had had tremens etc. at first however he was in a fair way to recovery, but finally insisted on going away. I think he thought the prospects were not sufficiently favorable for work. The next that I heard of him his leg had been amputated somewhere else. I am satisfied from my own experience that a good many of these joints can be saved so as to make the foot a great deal better than any artificial foot that can be be procured. I don't think that there is any especial way of operating, such as by the use of iodoform or other antiseptic. I don't think that I should like the form of suspension splint which the doctor has applied. I don't see what is to be gained by it. I think the drainage is not any better by placing the limb in that position, and it is a somewhat unnatural possition and must be very tedious to the patient. In the case I spoke of we simply passed a wire over the knee and applied a plaster of paris splint around the parts with a fenestra at the wound; in that way the limb was encased and suspended by a cord with no chance of moving at all.

DR. LOVE.—Dr. Meisenbach's case is a most interesting one and the result speaks for itself. It certainly is a very brilliant success. Some years ago I saw a case very similar. There was a dislocation and opening into the joint with fracture of the astragalus; the bone was resected, the parts brought into position

and dressed in plaster of paris. The union was by first intention. There was no suppuration at all and no untoward symptoms whatever. As a result there was motion in the joint.

DR. POLLAK.—Was some of the bone taken out?

DR. LOVE.—Yes, sir, and the result was quite as excellent as this.

DR. BORCK.—I would like to ask whether any gentleman present has ever seen a case like this, in which the astragalus was removed, in which there was no motion at all—in which there was perfect anchylosis?

DR. DEAN.—I don't think I have seen any such case. I would like to ask the doctor why he removed so much of the tibia and fibula.

DR. MEISENBACH.—In answer to the doctor's question I will say that the bones as I have shown, protruded very much and the amount of tension on the ligaments was much greater than I have shown. Perhaps I might have removed somewhat less than I did, but under the conditions at the time I aimed, in the imperfect light to strike the articular surface and take away just as much as was necessary. I might have gone a few lines closer than I did. I don't think this amounts to much. The amount of shortening was much less than a person would expect from the look of the the bone that I have removed. In regard to the question of Dr. Borck as to whether anybody has ever seen a case result in complete anchylosis, I will say that Turner, in Frank Hamilton's excellent work, records fourteen cases of excision of the astragalus in which I think, if my memory serves me right, in only one there was complete anchylosis. There was motion in all the others, more or less, though they do not say how much. I think the result in the case depends very much on the amount of motion. One may get union in the parts but there is not sufficient motion to counteract the natural tendency to stiffness. The ankle joint is one in which there must be a great deal of motion to make it at all valuable, otherwise the joint is of no account; there might be a slight fibrinous union and some motion. Therefore in the reports of these cases in which there is no record of the amount of motion they are imperfect. As far as this case is concerned I rather think from the history of the subject that the amount of motion is maximum. It is getting better every day, and at the

end of one year that patient will have a leg that he can use very nearly as well as the other. It is only six months since the patient sustained the injury. In all the other cases that are reported at least a year had elapsed from the time of injury to the report of the case.

DR. BRIGGS.—I would like to ask Dr. Meisenbach if he would care to remove the portion of the calcaneum?

DR. MEISENBACH.—In reply, I will say that in this case I got a better result—I got the surfaces more nearly approximated to each other—they are more nearly square to each other, and form more resisting surfaces to each other. That is the idea I wish to convey. If I were to do the operation over again I would do it just the same way.

DR. BRIGGS.—I will simply say that what I suppose takes place in most of these cases is that the cavity which is thus produced is to a great extent filled with adventitious tissue. I am speaking from what has been observed in other cases; in this case I should think it was a little doubtful how near the cut surface of the tibia approached the cut surface of the calcaneum. It is probable that they were separated by a certain amount of adventitious tissue and that the removal of the calcaneum was not of any particular advantage.

DR. HYPES.—I would like to ask Dr. Meisenbach if in performing this operation he did not so amputate the bones as to avoid getting an anchylosis in the joint; and if he were peforming the operation again if he would not leave a little more of the bone for the sake of getting a little greater movement in the joint?

I will say in regard to the use of antiseptics of various sorts that while I acknowledge their usefulness, we have some remarkable results without their use. I remember a case at the City Hospital; I don't know whether it is the one that Dr. Love refers to or not, at any rate there was a very remarkable result. A man was brought to the hospital—a very healthy looking young man about 25 years of age, perhaps, who had fallen a small distance, and in the fall his foot was turned outwards, completely rupturing the ligaments and soft tissue, so that the whole of the articulating surface of the tibia was exposed. This case didn't come to my ward, but was shown to me. Dr. Lankford saw the case and recommended that it should be simply stitched together,

and the parts put at complete rest, which was done by means of plaster of paris dressing, which was put over the wound without any antiseptics whatever, and the leg bound up and put at rest. This was not touched for some three or four weeks, and when it was unbound it was found that union had taken place by first intention. I simply relate this case to show that good results may be obtained in good subjects without antiseptics. I would like to have the doctor answer the question about the motion of the joint.

Dr. Meisenbach.—I think I can illustrate that with this drawing. You recollect the form of the parts. Here we have the internal and external malleoloi (referring to drawing). The form of this articulation is much higher at one portion than it is at another, and my object in removing that was to get two surfaces which when approximated would form a square basis so that when softening of the bone, and the tissues around it took place, should anchylosis occur we would have a firm anchylosis; and on the other hand, should a false joint be formed, I would have a better result than if I left those surfaces uneven. That was the hypothesis upon which I removed that articular surface of the calcaneum, and I think the result justifies the position. I think if I did the operation over again, as I said before, I should do just as I did and I think my results would be as good—everything being equal of course. There are certain possibilities which we have to figure on in surgery that we cannot determine beforehand. The question of antiseptics raised by Dr. Hypes can be discussed pro and con, yet I firmly believe that the success in these cases depends greatly upon the parts being kept in a perfectly antiseptic condition; and as far as my experience has gone there is no antiseptic that fulfils these conditions as thoroughly, especially where there is bone involved, as iodoform. I have a case under treatment now where there has been a fracture below the knee joint. The boy fell under a turntable. I placed that knee in a plaster of paris splint—a splint somewhat similar to that exhibited by Dr. Laidley in this Society some time ago, with some modification. The whole dressing was iodoform, I didn't use any water on it at all. Now in this case, although there is an abundance of secretion, there is no smell except of the iodoform. Another reason why I prefer it is because you can get it into crevice and corners. In this case I placed a piece of absorbent cotton in

the lower part of the splint to retain the secretions as they are formed, dressing the parts every three days. And I found that the cotton absorbed the secretion as fast as it was formed.

DR. DEAN.—The case related by Dr. Hypes reminds me of a case that come under my observation some tine since; a case in which a man was brought to the hospital who had a fracture and dislocation, and my idea was to put this leg in a splint at once. Some surgeon who was visiting the hospital said it was probably better not to do so; and as it was the afternoon for the St. Louis Medical College clinic, I waited until Dr. Hodgen came, and he fully agreed with me that it was the best thing to do. I did so, and the dressing was not changed once, but I think the leg was not shrunken—not atrophied, and the result was a good one.

DR. HYPES.—There is one point that I would like to make in regard to that operation. It strikes me that by preserving the articular surface of the bones we would get a better joint—there would be more motion than by sawing then off and bringing the square surfaces together. Then another point that seems to me would argue in favor of leaving the extremities of the long bones intact is this; the joint will evidently be surrounded by tissues of an adventitious nature and it seems to me that the joint will be much firmer and better if those two malleoli come down one on each side of the new articulation.

SATURDAY, March 17th, 1883.

DR. DEAN.—I have a specimen of congenital deformity to present to the society, and although the medical and surgical history of the case is not pertinent to the specimen, I think it of sufficient professional interest to be mentioned in connection with the specimen.

The patient T. B., was a colored man—a hand-expressman—aged 50 years. He was admitted to the hospital drunk on May 8th, 1882, with twelve incised wounds, two of which were penetrating. One on the left side a little below the ribs and just outside of, or posterior to, the mammillary line, had had protruding through it a portion of the omentum, which had been returned, it was said, and pin sutures used: another wound some three inches below penetrated the abdomen. He insisted on going out on the 19th, of May, although not well; and we were compelled to

let him go. On Oct. 3d, he returned, well of his wounds, but with an "intermittent fever"; was very weak and low, had great difficulty in breathing, and a very rough cough. He was unable to give us much account of himself. He couldn't be made to expectorate. We wanted to examine the sputa, but he coughed and then immediately swallowed.

When the post-mortem was made by my assistant, we found an abscess in the upper part of the right lobe of the liver about three inches in diamater, and opening through the diaphragm into the lung; and another abscess filled with pus, about two inches in diameter, encysted or encapsulated by the so-called pyogenic membrane. The former abscess was nearly empty; and it appears that while it was emptied through the bowels, it had been emptied in an indirect way. Thus the abscess had not opened directly into the bowels, but into the lungs, and the pus was coughed up through the lungs and then swallowed, and then it passed through the bowels, and of course, escaped our attention. I will say that the man had diarrhœa. So much for the medical and surgical history of the case.

The kidneys we found were united in the lower part forming the so-called horse-shoe kidney. The arch was about half an inch above the bifurcation of the abdominal aorta. Both kidneys had ureters—the right two. There was but one renal artery which divided and went to both kidneys. This was given off from the aorta near the origin of the common iliacs. The kidney was not only horse-shoe shaped, so far as the union was concerned, but as it lay across the spinal column it also turned backwards so that there was another bend. It was united so that about half or perhaps a quarter of an inch of each kidney disappeared in the other.

This is the common union of kidneys when they are united; although they are sometimes united at the top. Sometimes the union is merely fibrous, sometimes half or more of each kidney is absent. It is usual that both ureters are present; there are sometimes supernumerary ureters. It is also usual when they are in this form that they are lower down in the cavity than is usual with the normal kidneys—somewhere down about the bifurcation of the aorta. In this case, as is usual with kidneys of this character, the ureters pass over the arch anteriorly; the kidneys being somewhat distorted across the hilus the pelvis of the kidney projects somewhat forward. It used to be taught that

there is very little or no danger from these kidneys, as is usually the case; but several cases have been reported, one some years ago, in which a thrombus was formed by pressure upon the vein, and the patient died through the circulation being completely cut off. Another case has been reported in which, during pregnacy the uterus so pressed upon the kidneys that stagnation in the ureters occurred and caused considerable suffering. At the next pregnacy; the patient was not so fortunate but died, and the post-mortem showed that the urine was stagnant in the ureters, and pyo-nephritis existed. Another case is reported in which a wrong diagnosis was made. The kidneys were over the aorta, and an exostosis of the lumbar vertebra pressing the kidneys and aorta forward, the pulsating tumor presented the appearance of an aneurism of the aorta.

So there have been some other cases reported of children dying with brain symptoms, in which, after death, horse-shoe kidneys were found. In my case the kidneys appeared to have caused no trouble, if we except the possibility of the liver abscesses resulting from embolism either from an anastomoses with the portal circulation or from the vena cava back to the portal vein, as has been suggested by some. It was formerly taught that the kidneys where originally united together and divided afterwards—the horse-shoe kidneys not dividing; but it has since been proven that they are developed originally almost in contact with each other, near the median line, and the union is the result of fusion. In man the true or permanent kidneys, as distinguished from the primary or primordial kidneys, are developed from the urinary as contradistinguished from the genital bodies of Malpighian system. Diverticula or collecting tubules shoot out from the upper ends of the ureters, into the metanephros, the *tubuli uriniferi* and Malpighian capsules being formed either by the extention and twisting, and the expansion of the ends of these tubules, or by the union of the latter with masses of cells of the metanephritic blastema that differentiate into secreting tubuli and capsules; this blastema in either case forming the capillary network. The kidneys are at first, oval bodies, and soon divide into lobules that afterward coalesce. At birth the kidneys show the signs on their surface of the former lobulated condition; and sometimes in the adult the same rudimentary condition is more or less marked. The lobular form persists, as the normal or permanent one in some animals, in some, even, the organs being

divided into small lobules like bunches of grapes. The lobular condition of the embryonic kidney, in man, favors the union of the kidneys, in the so-called horse-shoe kidney, the lobules disappearing in each other, or coalescing.

Dr. Love.—I have a specimen here—a limb which was amputated on account of a crushing produced by the wheel of a carriage. The child climbed on the back of a carriage, the limb caught in the wheel and being drawn in was carried around, the axle producing extreme crushing and tearing. I was called to see the case and found the child suffering considerably from the shock though entirely conscious and as brave as a hero, ready for whatever might be necessary to be done. Upon examination I found that the muscular tissue of the thigh was most fearfully torn and crushed and at first it was questionable whether it would not be necessary to remove it at the hip joint, but a desire prevailed to save as much as possible, and the tissues that were most crushed were selected and removed. Amputation was decided upon in the upper third. The limb was cut off, making a clean circular amputation and the parts drawn together with stitches, which were then covered with absorbent cotton, iodoform being used, the parts having been previously bathed in astrong solution of carbolic acid. Reaction took place very nicely. The point I wish to draw attention to in reporting the case is not the amputation; not the conservatism in leaving a longer portion of the limb than seemed at first advisable, and not amputating at the hip joiut, but it is the circular amputation and the subsequent management of the case. After the first twenty four hours the stitches were removed. The child's temperature was, of course, considerably elevated, but it was not as great throughout nor was there as much inflammation as I had anticipated, considering the amount of injury to the soft parts. A point that I desire to draw the attention to, is the fact that from the time of removing the stitches, bandages were applied to the stump down to the edge of the wound, making firm pressure upon the vessels and the parts, preventing absorption of whatever pus might be present, stimulating a free discharge, and preventing any pocketing or retention of septic matter. The case is doing admirably. There is no evidence of absorption; the discharge is free, pressure is well borne. Now this is a course that I have pursued in cases of amputation of the arm, fingers, etc., making

a clean circular operation and from the very start bandaging firmly down to the edge of the incision, only relieving or cutting the bandage when urged to do so by the pain, and generally not having to do so at all. This plan was suggested to me by a report by Dr. Linck of Terre Haute, Indiana, of a number of cases at the meeting of the Tri-State Medical Society two years ago, and his plan was similar to that which I have suggested, namely: to bandage from a point as high up as could be reached on the limb, and come down to the edge of the wound, putting nothing over it at all; simply leaving it without a covering of cotton or anything else. My experience has convinced me of the advantages of the plan suggested by him. I suppose in my case the bandage diminished the supply of blood to the part and limited the inflammation, and in the same way prevented the absorption of septic material; it has supported the parts well and prevented accumulations of pus. I don't know whether I have made myself clear in the statement of the case; but certainly in the majority of amputations I should pursue this method, making a clean circular operation, bandaging it from as high a point as can be reached, and leaving the wound entirely open so far as we can, so that we may watch it. We might throw a thin gauze over it, but that is not material. I have brought the specimen simply to show the amount of crushing.

DR. POLLAK.—What sort of pad do you expect to get?

DR. LOVE.—The pressure upon the muscles produces a disposition to cover the bone, and the scar will be in the centre. The result has been uniformly good, even in the finger; there has been no sensitiveness or tenderness about it, and the healing has been unusually rapid.

DR. HOLLAND.—The doctor seems to place a good deal of stress upon the point of bandaging from the highest point downwards: I would like to know the advantage of that sort of bandaging over the usual method of bandaging from the injury upwards? That is, the usual way of bandaging?

DR. LOVE.—The idea I desired to convey was that we should bandage from as high a point towards the end as possible; simply with the view of controlling the supply of blood to the injured part, and to prevent absorption in that way.

DR. HURT.—I recollect some years ago, I think it was when

I was in charge of the City Hospital, that I came across a case quite similar to this presented by Dr. Dean : a horse-shoe kidney. The subject was a male I remember, but I am not positive that I recollect what he died of. He didn't die of horse-shoe kidney. The functions of the kidneys were normal as far as we had made any observation on that point. He died from some other disease —some heart or lung trouble I think; and in making the post-mortem this condition of the kidneys was discovered. I exhibited the specimen before this society I think, pretty soon afterwards.

I want to say in regard to the specimen of amputation presented by Dr. Love, that I noticed the manner of expression as to the mode of bandaging that was mentioned by Dr. Holland, and it occured to me quite singular, but then as I began to philosophize in my own mind upon the subject it occurred to me that it was not an unreasonable method even if the doctor had done as he said he did; commencing as high up as possible, and bandaging downwards. The fact must be apparent to all that when the muscles are severed in the process of amputation, they retract, and one of the best ways of overcoming this retraction is by bringing the tissues down to the points from which they started when they were severed by the knife: is to begin above the belly of the muscles severed and bandage them—bandaging them from above downwards. Now what is the objection to this? If the blood vessels were intact, why, it would be very objectionable of course as the blood would accumulate in the parts below; but we must remember that in those cases of amputation the veins are covered with the muscles, and the process of amputating is from below towards the centre—from the periphery towards the centre, and before the bandaging commences the veins are emptied. It would be necessary to bandage unreasonably tight in order to do any injury to the arteries of course. Therefore I see no reason why in taking a rational view of this subject you might not; and why it would not be a very proper method of bandaging to commence as high up as you can go and bandage downward towards the wound. In doing so you overcome the retraction, and you bring the tissues down to their proper relations with the bone. The fact is that in amputating the bone you have taken off the portion exposed by the retraction of the muscles, and by bandaging from above down, you may get a reasonable covering for the end of the bone.

DR. WATKINS.—I think Dr. Love's principal object in introducing the specimen to-night was to bring up the subject of bandaging from above downwards; but I think it will be very readily perceived that it would be a good plan in most cases where from malposition or insufficient drainage there is a tendency to burrowing and pocketing of pus backwards from the extremity of the stump. I think the idea of bandaging from above downwards is a good one, as it would give equable pressure and if there is an exudation of pus it would be discharged from above towards the extremity of the stump. I think that was one of the principal reasons why the doctor brought the subject before the attention of the Society.

DR. HURT.—I think Dr. Love, from his reply to Dr. Holland, did not really mean what he said. I took him at what he said instead of what he meant, and insist that what he said is philosophical.

DR. LOVE.—The point I wanted to make was this: if the proper pressure is brought to bear in applying the bandage, that it might just as well be applied from above downwards, as from below upwards—it makes no difference—we might regulate the supply of blood to the part, control the inflammation, and control in some degree also the absorption of any suppurative materials that might be there. Whether the bandage is applied from above downward, from the proximal extremity towards the end, makes little difference so long as the proper pressure is brought to bear at the proper place.

DR. LUTZ.—I have listened with some degree of interest to Dr. Love's exposition of the manner in which he proceeded in this case, and it strikes me that whenever we have the making of a flap in any surgical amputation—whenever it rests upon us to make a flap, we should make such a flap as will insure favorable union by first intention; and we should insure from our flap, and bandage and the manner in which we coapt the different surfaces the most perfect drainage. Those are the two objects that we should aim at, besides furnishing a serviceable covering for the stump. Now when you have an injury, say a railroad case, where you are not sure the line of demarkation will be—where you don't know how much of the soft parts are going to slough away, and you have no kind of covering for the bony ends, it is well not to use any kind of suture; but where you can make a clean cut and

can coapt the different surfaces in such a manner. I think it is the first principle of surgery to secure coaptation by sutures and to get union by first intention; leaving, of course, at the proper dependant angle of the wound an opening through which you insert the drainage tube, or whatever substance you may utilize to secure escape of any secretion that may form and prevent absorption. Then, even supposing that you have a sac, if your stump method be pursued and proper irrigation is adopted, by passing an antiseptic lotion through the surface or over the surface of your wound through the drainage tube, in almost every case you will succeed in getting good results and prevent the absorption of poisonous materials from the surface of the wound. Now, in so far as the bandage is concerned, the primary object of the bandage is to secure the parts in the position, in which the surgeon originally placed them. It is supposed, of course, that he has determined the best possible position for the flap that the nature of the wound will allow. Now the first object of the bandage is to secure the position of the flaps and the wound in the original position. Now I do not believe that you can make any kind of pressure with the bandage on such a stump as this was without securing it so firmly as to interfere with the circulation to a very dangerous extent. You either cut off the blood supply, which in an open wound will prevent the normal progress of granulations, or if you have a wound in which you have inserted sutures, the pressure which you make so firmly will interfere with the nutrition in the margins of the wound and suppuration will result. If, on the other hand, you make only sufficient pressure to keep the flaps in position, I think the object which the doctor intended to accomplish, that of diminishing the inflammation will be accomplished; and then again, why should the blood supply to a part be diminished in that way?

Now we know that the mere fact that an inflammation is going on in a part is conclusive evidence that there exists in it an increased supply of blood, and this supply is regulated by the demand in the part, and in order that the increased nutritive changes in the part may go on, it is necessary that this increased sary that this increased blood supply should be furnished; and it is also necessary that this increased supply of blood should again be brought back to the heart and back to the central circulation; that the veins and the lymphatics should not be interfered with; and I think that by making firm pressure

we would interfere with both lymphatics and the veins. Then again, whenever we have a stump the covering of which seemed to be extensive enough to furnish a good pad, I believe that constant pressure upon the muscles will increase their power, for a time at least, of retraction; the innate power of muscular fiber to contract is evidenced by the mere coaptation of muscles; they retract, and then if you apply a certain amount of irritation such as a bandage around a certain set of muscles you will find an increased power of retraction; but after a while this retractive power, or this elastic power of the muscle will become exhausted, and the question then is whether this pressure which produced the exhaustion of the muscles will leave enough vitality to enable it to carry on healthy granulations. Now it seems to me that whenever you cannot form a flap sufficiently long to cover your wound satisfactorily, extension, as experience has proved, is the thing to be used. Now I will illustrate that by a case that left my care yesterday or the day before. I presented the specimen here two or three weeks ago, of an unsuccessful resection of the knee joint, in which I was obliged to amputate the thigh at the lower third. I found that after the tumefaction of the muscle had subsided that my flap was far fron being a satisfactory one. I had been deceived in the amount of muscular tissue that I had at my disposal, and had therefore cut off the bone lower down than I should have, and there was a tendency of the muscles to retract over the bone. Of course it never did succeed in coming back over it, but there was that tendency. Following the old established rules laid down in every work on surgery that has been printed for years. I applied extension by means of adhesive strips on either side and in a circular position. I made them sufficiently tight to insure the drawing down of the muscular tissue by a weight applied to the abhesive strips. By this means, besides securing a covering for the stump the circulation is not interfered with. After amptating the limb it should be put in the most favorable position to insure good results. We should allow a free circulation, and not interfere by means of bandages with the processes of inflammation and granulation or cicatrization.

Whenever I have attempted to improve on the mormal course of physiological process I find I always come out second best, and I think he is the best surgeon who allows the normal processes to take their natural course. You can't hurry granulation of the

wound ; you can only put the parts in the most favorable condition for granulation and cicatrization.

Dr. Gregory.—Mr. President, I dont attach as much importance to the use of a bandage as some surgeons. Really I believe that I frequently put on a bandage when I think if I were to leave the parts uncovered probably they would do better. I cannot for my life see what part a bandage plays in the dressing of a stump. I put the bandage on sometimes. Some people would think they were not being treated well if I did not. I always know the people whom I am treating. Sometimes I leave the parts open and do not put a bandage on at all. If I put a bandage on, in a day or two when I open the part I leave it off. I have for several years been in the habit when putting on a bandage of pulling the part down and bandaging from above rather than bandaging them from below upwards, and as for our controlling muscular action with a bandage, I cannot believe that it is so. My bandages are loose in a very little while. I don't put them on tight. I think a tight bandage is injurious. I think that a bandage put on moderately tight is so loose in the course of an hour that it would certainly do no good in the way of controlling muscular action. I believe the great point in the treatment of wounds is to keep them quiet; now whether the bandage accomplishes anything in that way, I am not prepared to say. I don't know that it does. I have thought that if a bandage could be put on in some cases and this bandage could be covered over with plaster of paris—covering the whole stump—so as to prevent any injury to the stump; and preventing that unpleasant sensation of injury which every man feels who has sustained an injury. If one hurts his finger he is constantly hurting it, and keeping the wound open by striking the part. We know that the pain in a wounded part is apt to occur in paroxysms—it comes in starts; and after amputating a limb it seems to me that the stump is seized by muscular contraction ; and I have no doubt that at the time the limb is seized by the muscular contraction or spasm or when there is any disturbance from within or from without, you diminished the successful progress of repair of injury. I believe if it were possible after an injury to prevent any hurt from within or injury from without, the parts so hurt by the surgeon or by violence—if they could be kept in a perfectly quiescent state, so that there could be no exaggeration of inflammatory action, would

develop just the degree of inflammation corresponding to the injury, and which of course would be necessary to the reparative action. For a long time I have had a point of view relative to to inflammation of this kind. I do not believe that inflammation is an essential disease. I don't believe that inflammation is ever a primary disease. I do not believe that an inflammation ever exists except for the purpose of repair. I don't care how it originates; whether it be what is termed spontaneous inflammation or not, there is some lesion of nutrition which determines the inflammatory process.

After a limb is cut off, if we could keep the parts perfectly quiet we would have just the amount of inflammation which corresponds to the injury; the inflammation would be essentially reparative and any inflammation beyond this is the result of some condition we know not of. Whenever there is extensive inflammation not the result of the primary injury it is the result of some secondary injury. If an injured part is hurt by anything, if it is injured additionally from without there is an additional inflammation. If a part is injured, inflammation arises from it and it is never in excess; but when a hurt part is hurt again and again, a condition of things arises which is exceedingly complicated. We have an inflammation following each injury to such an extent as is required for the reparation of the injury. This way of looking at inflammation has come to my mind to be a most satisfactory one, and until I got this idea into my head I must say that inflammation always seemed to me a rather vague process—to be a process that was perfectly incomprehensible. But since I have come to look at inflammation as always the result of some accidental condition, never a primary condition, it is all very clear. When it is complex it is always easy for me to explain why it is complex from my point of view. As far as the bandaging of the limb is concerned for the purpose of preventing inflammatory process. I think it is well if it will prevent any further injury to the already suffering part; that is the point of view I take of it. If the bandage will do that it is all very well; but as I said, I doubt very much whether it will do it. For a long time I have been in the habit of leaving the sutures out of the wound. I have long since been impressed with the fact that the sutures only bring the skin together, and whenever the parts beyond the skin are wanted to be brought together—the deeper parts—the connective tissue, involving the muscles, some

other means must be used. Of course there are spaces left beneath these sutures. If you put on a bandage there are spaces necessarily left. If you take a flat sponge, properly cut and coapting all the factors of the stump, take this sponge and apply it to the stump in such a way as to close up the spaces in the wound, the deeply wounded textures, I think you might accomplish a great deal. I do not think it is possible by pressure, to close up all the recesses in a wound. In every wound there are little spaces where the blood exudes, where serum exudes, and you have a material that must in a few hours, ferment, and this fermented material must get out through the wound; it must get out in some way or another. If we could close up all these spaces, you have the tissue in contact and they adhere together, and in the course of a few hours you have union by first intention. But I do not believe that we can accomplish this object by pressure. We are as apt to apply the pressure wrong as we are to apply it right, and yet I believe that the method of treating stumps by a sponge bandage, when it can be properly accomplished, will produce good results. But I am satisfied unless this can be done, the stumps had better be left without any bandage, and placed in some position that is as favorable as possible to the escape of the materials which come from the injured parts and over-distended blood vessels; we should favor their escape as soon as possible, and depend upon the process of growth from the bottom of the recesses of the wound for reparation. I remember being in court a few years ago, and meeting an old doctor who was being asked some matters in regard to the treatment of a certain injury—a certain fracture about which there was a law suit—and he said that the reason there was deformity was because the doctor hadn't used a bandage. He evidently believed that a broken bone could be held in place with a bandage. It is difficult for me to suppose that any medical man with gray hairs on his head, would suppose that a bandage would hold broken bones in position. And what is true in regard to broken bones, so far as I can see, is true in relation to bandages put to many other purposes for which they are used. I am satisfied that bandages have done as much harm as they ever did good. I am satisfied that three-fourths of all that we do for wounds, does more harm than good, and the best that the surgeon can do in these cases is to put the wounded parts in a position of rest; put them in a position that favors the circulation

in the part, the return of circulation and the increased circulation; place it in such a relationship as to avoid as far as possible, injury from within or injury from without, which will interfere with the healing process. We should try to prevent all excess of inflammation which results from new injuries and not the first injury; because the system responds to one injury but once, and whenever there is more response than the seeming condition of the parts would cause, it is because changes have occurred which depend upon causes that we think are very trivial. A man who is accustomed to have his fingers cut, finds that he would forget it, if it were not for the fact that he is constantly bringing it in contact with everything he touches. An injury which he imagines is almost well, he finds in a few days to be inflamed, the reason being that he has injured it again and again until the nerves in the part became, as it were, exasperated. So it is in surgery, and we should endeavor, as far as possible, to prevent any secondary injuries to the parts.

DR. HOLLAND.—The Doctor states that he does not think that a bandage does good. He thinks it necessary to have entire rest. Now, I say that the bandage is one of the best methods of procuring rest in an amputated limb; a bandage is the simplest and most general way of procuring immediate rest, which is required in an injury of this character. There is no doubt that if the Doctor wounded his finger, the first thing he would do would be to grasp it with the other hand. Now for what reason does he do this? His purpose is to give the same support as is intended to be given by the bandage. Now, in order to give the parts rest, it is not necessary to bandage them very tightly. I don't believe that is proper. But I do say that when we cut off a limb, and lay the stump on a pillow, and fix it in position, it will not do to leave it so. It is almost impossible to control the twitching which always succeeds severe operations, and if for no other purpose than to give the past temporary rest, there is nothing I can mention that is more beneficial than the bandage—I would not bandage too tightly—but just sufficiently to control the muscular twitching.

DR. HURT.—I didn't want to discuss the subject of inflammation at all, but I took the ground ten or twelve years ago, in a paper read before this society, that inflammation was an exagerated hyperæmia, and I think that my friend, Dr. Grogory, is pretty

nearly in line with me in regard to that question; but I am a little afraid that we have drifted away from the point that Dr. Love wished to illustrate, and which induced him to report the case here; that is, the merits or demerits, whatever they might be called, of the circular operation. So far as bandages are concerned, I must contend that in surgery we can scarcely do without them. I am satisfied that they are of service in procuring rest as well as assisting in maintaining the parts in position. The fact that bandages may be drawn too tight, is no argument against the use of bandages; that is the fault of the surgeon. The question as to the merits or demerits of the circular operation in comparison with the various forms of flap operations, it seems to me, is the question which we should discuss. Of course, other subjects are necessarily drawn into the discussion. In the circular operation there is this advantage, that the least possible amount of surface is left exposed, and then by the use of pressure—as much as is allowable so as not to interfere with the physiological process of repair—you will lessen the extent of the raw surface; and so also the bandage may come in as a means of lessening the extent of raw surface to be repaired.

Dr. Love.—The gentlemen talk about not interfering with the normal processes of nature, not interfering with physiological action. I would suggest that when an accident occurs and a limb is crushed, the attendant condition is not normal but pathological, abnormal and you have to treat it as such. The point that I desired to make in reporting this case of amputation, was as Dr. Hurt suggested, the advantage of the circular operation. I also desired further to demonstrate the advantage of treating the stump open, as Dr. Gregory recommends, not closing it at all, but simply drawing the skin together and using bandages to support the parts, and in the application of the bandages, I would apply them from above downwards, although the initial point is immaterial. As to the risk of shutting off the circulation from the extremity, and interfering with nutrition in the extremity, I think that is very small. You will have a large number of muscles to be drawn together and there is no risk of overcoming them to such an extent as to prevent the nutrition of the parts. To say that a properly applied bandage will interfere with the reparative process in the parts, is to my mind, absurd. Why do we apply a bandage in swollen joints? To support the

part, to limit the inflammation, to prevent the too rapid accumulation of blood in the part and to relieve the pain by pressure. Why do we apply a bandage to an ulcer in the leg? According to the ideas advanced here, we ought to leave it open and not interfere with it; simply leave it open and give it a chance to heal. But by applying the bandage, we give the part support, control the circulation and favor the healing process; that is what we accomplish in applying the bandage; and if we give this support and leave the wound open, we accomplish the very desirable thing suggested by Dr. Gregory. We can see that the pus has a free exit; by the proper use of bandages, and leaving the wound open, we allow the free exit of poisonons substances. Now this is not theory only, it has been proved by practice. During the past year three cases have come under my observation, in which the circular method of amputation was adopted; and in which the bandages were applied from above downwards to the very edge of the wound, then leaving the wound perfectly open, and in each a most excellent result has been accomplished. There was no fever, no pain, no extra amount of inflammation, and in short, in every case there was a most excellent result. The same treatment has been followed in amputation of fingers. The bandages being applied from a point—as far up as possible—downwards to the very margin of the wound. My experience certainly confirms the statements of the great advantage of this over other methods. I don't claim that the idea is original. I am simply carying out the idea of Dr. Link, who, two years ago, reported some forty or fifty cases. He has a large practice in railroad cases, and has made a good many amputations and invariably makes them by the circular method, and bandages from above downwards.

DR. MEISENBACH.—I have listened with considerable attention to the discussion this evening, and I must confess that I have learned a good many things in regard to the use of bandages. If my recollection serves me rightly, we were taught that the first principle of surgery was the correct application of bandages, and the older I get and the more experience I have in the handling of wounds, the more I become convinced that the successful issue of an amputation oftentimes depends upon the character, direction and regulation of the bandages and the character of the pressure. In all cases we desire healing by first intention, and

the first point to be attended to is to get a close adaptation of the surfaces. This can be accomplished by the correct application of a proper splint and a bandage in all flap operations. This is essential. The circular operation is different in a great many respects, there you do no expect healing by the first intention; we expect healing by granulation. In cases where we expect to get healing by first intention, the close adaptation of the two cut surfaces is necessary; and we are apt to have little *cul de sacs* formed; as Dr. Gregory has mentioned, there will be a collection of exudative matter which produces inflammation. Therefore it is necessary that pressure should be correctly made, so as to prevent this. This can only be done by a careful regulation of pressure. To illustrate two cases which recently came under my observation, have more thoroughly convinced me of the value of properly adapted pressure, than I have ever been convinced before. In both of these cases there was periostitis set up, and I gave it a sufficient time to heal, as I thought, both patients being laboring men, I advised them strongly to have the fingers amputated—these cases were of injuries to the fingers—I advised amputation both as a saving of time and because I thought it would lead to a more successful issue. I performed the circular operation, not using the circular flap. I made a large flap with the idea of bringing it around the wounded part of the upper surface. But I was unable to coapt the flaps on account of the infiltration of the parts. I had made the operation and had to go on with it. I was in a quandary. I feared that extensive pressure would cause sloughing. Nevertheless, I put on adhesive strips, and after a time there was a considerable diminution of the parts—they were diminished in size, and shrunken. There had been excessive exudation, and the circulation in the parts was increased, carrying all the exuded matter off. In short, I had a result which I found was equal to if not better than any amputation that I had performed for injury where the soft parts were in a normal condition. It is possible that if I had not applied the adhesive strips, I would have had a successful issue, but it seems to me that it would not have been so. I cannot see how the position that has been taken here, will affect the question to any extent. I think the bandages will be applied as before: they will be applied intelligently, and that they are one of the appliances of surgery that are just as essential as the knife. Of course, it all depends upon the method of applying the bandages, whether

it is done intelligently or not. In regard to the direction in which we bandage; I don't think it matters much which way we bandage, whether it is from above downwards or from below upwards. I do not believe that it is possible to control muscular action by a bandage.

SATURDAY, March 24th, 1883.

DR. WATKINS.—I had a very interesting case that came under my care last Wednesday, and I would like to report the symptoms in the case and ask to be enlightened upon them. Last Wednesday I was called at 12:30 P. M., to see a patient at a tobacco factory on Main Street, where I found A. K. in convulsions. His age was thirty two, he was a German of spare build but muscular; his business was that of cigar roller. His habits were good. He takes about three glasses of beer every day, stammers in his speech, is irritable in his nature. There was no history of epilepsy or syphilis. He stopped his work and pointing with his finger, uttered an unintelligible exclamation and sank silently to the floor. He was seized with a convulsion which lasted about three minutes, followed by stertorous breathing, and a comatose condition. This was repeated four times before I arrived, and after I arrived and during the application of treatment, he had two more attacks. Between these attacks there was an interval of perhaps fifteen minutes. Between the convulsions there was a tremor of the whole body and the extremities, something like that which we see in the quail or pigeon on crushing in the skull. The most severe handling elicited no signs of consciousness. The pupils were much contracted. Upon the approach of a convulsion he would open his eyes and the balls would turn up. The tongue was bitten badly before my arrival. The facial expression was altered but little, in color it was ashen gray. I had him removed in a wagon, to his home seventeen squares distant. While being removed into the house, he showed some signs of returning consciousness, and in half an hour was able to answer questions. He complained of pain in the head in the frontal region and was disposed to sleep. The latter might have been produced by the remedies applied. Thirty hours afterwards I examined his urine. The patient lay unconscious for three hours. He is progressing fairly now. He is suffering from no symptoms except from a

general malaise. I don't know what caused the convulsion. I would like to hear the opinion of the members, and shall be glad to answer any question that any gentleman may wish to ask in regard to the case.

Dr. Pollak.—Was there any history of mental trouble?

Dr. Watkins.—No, sir.

Dr. Pollak.—Was there any excitement?

Dr. Watkins.—None whatever. He was rolling cigars and suddenly pointing his finger in this way, (indicating) and sank right down. There is no history to the case. I was perplexed and troubled. I treated it on general principles, pretty much as I would a case of active congestion, and the result of the treatment was good.

Dr. Pollak.—What did you give?

Dr. Watkins.—My first treatment was as follows: I applied a large mustard plaster to the back between the shoulders, and I applied ice to his head, with inhalations of chloroform, and poured a solution of bromide of patassium between the teeth. I also rubbed his throat to increase the act of deglutition. After I got him home I gave him a cathartic—sulphate of magnesia—to be followed in a few hours by enemas. I could not discover any cause for the convulsions. The subject of nicotine poisoning came up, but of course, the symptoms would be altogether different.

Dr. Pollak.—Was there any paralysis?

Dr. Watkins.—None whatever.

Dr. Pollak.—What was the condition of the eyes during the convulsions?

Dr. Watkins.—The pupils were contracted, the conjunctiva was very much injected—suffused.

Dr. Pollak.—Were they convergent or straight?

Dr. Watkins.—Neither one, sir.

Dr. Atwood.—It seems to me, Mr. President, that the history of the case related by the Doctor, is a very ordinary one of epilepsy. I suppose the Doctor recognized it as epileptic seizure, and that the convulsive movements were dependent upon reflex

action, as is always the case. I think the symptoms that he has described are the very ordinary sequellæ of epileptic seizures, and I don't recognize anything extraordinary in the frequency of the convulsions. It is impossible to say what was the cause of the irritation in this case. The Doctor did not find out. It is altogether possible that the man ate something that was undigested, and passing into the intestine, set up an irritation that caused the trouble. Then again, there might have been a central lesion. Then the Doctor has not satisfied himself that there was no syphilitic infection. It requires a great deal of careful questioning and investigation to determine the fact, as I have noted in several instances. I remember an instance in which I was called to a dry goods house on Fourth Street, and found a man wrestling with several men. He had been seized with an epileptic attack and convulsions, such as the Doctor has described, one after another, so that it took five or six men to restrain him sufficiently to prevent him doing himself bodily harm. Finally he recovered sufficiently to be taken home. I could discover no reason at all for the seizures. He said his bowels were in good order, and he was in excellent health and able to discharge his daily duties, and that he lived with the precision of regularity. I asked him, on my next visit, in regard to syphilis, but it was not for some time that I discovered that he was the victim of secondary syphilis, and that he had it in a very bad form. Then I was enabled to form a diagnosis. It was a conviction in my mind that the seizures were dependant upon syphilis. I do not see anything extraordinary in the case at all. It is the common history of epileptic seizures.

DR. MONTGOMERY.—I was very much pleased with the case reported by the Doctor. It is a very interesting one. One of practical importance. I think it possible that the convulsions were brought on by some impropriety in diet or something of that kind. I don't think if it had been caused by syphilitic taint, the case would have gotten well so quickly. The Doctor's treatment, I think, was very judicious: ice to the head, mustard plaster to the spine. I think it was very good indeed. I think in these cases it is a good thing to give a cathartic of calomel (?). It is one of my favorite remedies, and I sometimes use colocynth. In this case the patient being one of regular habits, with no venereal taint, and as the convulsions were probably brought on by

some impropriety of diet, I think the Doctor's treatment was a very good one: In these cases the treatment is very prompt of course, and I don't believe in this placebo (?) treatment; I believe in giving a good purgative, and then I would give bromides. I have great faith in them. If there is congestion with inflammation of the brain, I think the bromide is very excellent. I would dilute it, giving ten or fifteen grains at a dose, every three or four hours. It has a wonderful effect. A great many physicians think it depresses too much and is dangerous. I deny it. I have had a very large experience in the use of this remedy and never saw any bad effects from it. In a multitude of instances, I have seen the very best effects from the bromide of potassium in any case of inflammation or congestion. First, I give a purgative or injection, and then I make applications of ice to the head and mustard plasters to the nape of the neck. I think the Doctor managed his case very well. I am glad to hear those cases reported, because they are of practical importance. I don't believe in the expectant treatment, I believe in doing the very best we can for our patients.

Dr. Watkins.—I wish to state, as the suggestion has been made, that the convulsion may have been due to improper diet, that I made careful inquiry in regard to it. The man is a German six months from the old country, and he had to address me in German. I asked his wife particularly in regard to what breakfast he had taken on that morning, and she said it was their custom to have a breakfast of coffee, bread and potatoes, without meat, and that they had partaken of such a breakfast that morning; that they had not departed from the usual rule, so that I cannot ascribe the trouble to any impropriety of diet. And then, the convulsion took place at ten minutes to twelve, and it is not probable that anything which he had eaten at breakfast early in the morning—he having got to the factory at seven o'clock in the morning—would have caused any such trouble so late in the day. My first impressionas to diagnosis, was that it was an active cerebral congestion and I treated him accordingly. He was not of an apoplectic build; he was a sparely built man, and there was no history of apoplexy in the family, so far as I could learn. He didn't look like an apoplectic subject.

Dr. Atwood.—I wish to call attention to the last remark of the Doctor, in regard to the physical conformation of apoplectic

patients, as if that had some relation to the apoplectic seizures. It doesn't signify anything whether a man has a short neck, large abdomen and tremendous limbs or not. He may be of low stature, lean and slim, and yet the apoplexy is the result of an atheromatous deposit in the blood vessels of the brain. If he is healthy it makes no difference what his physical conformation is.

DR. MONTGOMERY was asked by the President to make some remarks on some subject.

DR. MONTGOMERY.—I would like to bring before the society the subject of the treatment of pneumonia in children. That is one disease in which I feel that I cannot do much. I have a great deal of confidence in my ability to treat children in most other diseases; but in pneumonia I have met with great fatality, much greater than in other diseases. In diphtheria and scarlet fever, as is known to some of the members of this society, I have a good many cases, I have not lost three cases in the last three years; but in the disease of pneumonia among children, I have lost a great many cases. I would like to have the opinion of the members of the society, as to the best method of treating it. I really feel mortified and vexed when I am called to a case of pneumonia in a child under eighteen months of age. My treatment has been to control the irritation and the use of just a little mild mercurial cathartic—I give a little dose of calomel and ipecac; I have used all the remedies recommended in the books, and yet the patient will die. I apply counter-irritants and give them small doses of calomel, bicarbonate of soda and ipecac; I also give quinine, syrup of squills, mucilage, gum arabic; apply mustard plasters to the feet, and give them sustaining treatment. Yet they will die. I have no trouble in the treatment of diphtheria. I have not lost a case of diphtheria in three years. In the treatment of diphtheria, I give the muriated tincture of iron, quinine, chlorate of potash. In making my applications internally, I don't use the common sponge probang. I use a uterine sound, roll a little cotton around it and apply the permanganate of potash. In some mild cases I apply carbolic acid dissolved in glycerine: one drachm of carbolic acid to seven of glycerine. This is a very excellent remedy. I really think my treatment is good from the results that have followed it. I have treated a great many children, and in some cases where there seemed to be very little hope, but I have not lost a case in three years.

Dr. Fischel.—I think Dr. Montgomery has been both fortunate and unfortunate. He has certainly been unfortunate I should take it in the class and character of patients that have consulted him with pneumonia; and he must have been exceedingly fortunate in the class and character of cases that have come to him with diphtheria. In the synopsis of his treatment which the Doctor has just given, I don't see wherein it differs materially or perhaps at all from the generally recognized treatment of diphtheria. Certainly the internal treatment is that which is perhaps most generally made use of, with very mild mercurial purgative to relieve the bowels of the patient, and then following that up with the treatment of the muriated tincture of iron, chlorate of potash. As to the local treatment perhaps the Doctor's use of the permanganate of potash is a little different from what most practitioners use. Certainly his application of carbolic acid agrees with that which in the judgement of most practitioner, is advisables. I think the Doctor is fortunate in having such wonderful success. In regard to his cases of pneumonia, while I would not of course, think of suggesting anything to the Doctor, I believe if the treatment was more expectant, the Doctor might meet with better results. I remember when I visited the Child's ward in the Vienna Hospital, the treatment that Dr. Wiederhof advised for his cases, was to let them alone as much a possible. He would make use of poultices externally, and of course protect the patients well from the influences of the air. Internally he would generally stimulate whenever it was possible. Because the danger in cases of this kind was more from collapse than anything else. The treatment with ipecac and mercurials and tartar emetic and that class of remedies was scarcely ever used. What was occasionally used was an effusion of digitalis, and while they had, of course, a great many deaths, the percentage could not possibly have been as large as that of Dr. Montgomery. From my own experience I have learned to dread diphtheria most. I have had quite a number of cases of diphhtheria lately and in some of them I felt satisfied that the case was hopeless. I cannot give the reason for thinking so, I don't see why I should have made so unfavorable a prognosis. So far as I could see, the cases were no more malignant than many others that had gotten well, and yet the general appearance of the child, and from indications that I couldn't describe, and which I don't think any physician can describe, I felt justified in saying the case was hopeless. In the

case of one child, it lingered ten days. At one time it seemed better, and then again worse, finally septicæmia came on and the child died. My treatment did not differ materially from that of Dr. Montgomery.

DR. WATKINS.—I have practiced medicine eleven years, and of course, my experience is a small one, compared with Dr. Montgomery, but I have treated a good many cases of pneumonia in children during that period, and I have been satisfied that the successful issue of pneumonia in children could be ascribed not to the treatment of the disease so much as the fact that they were let alone. As far as remedial measures are concerned—that is medicinal measures—they are often of little avail. I give a dose of calomel to a child with pneumunia, only when there is special indication for it outside the lung tissue. I depend more upon poultices and keeping an equable temperature, and keeping the patient perfectly quiescent. Stimulants and a nutritious diet and very little medicine seem to do the most good. For the first two or three days I like to control the action of the heart with digitalis, better than with any other heart sedatives that I have used. I don't like aconite. I almost always commence to give quinine in very small doses. I don't use antimony or ipecac unless the air passages indicate the good effects of the emesis. I use brandy, quinine and equable temperature—about 70°—I keep a thermometer in the room. I think warmth and moisture are what are needed, and for this purpose I don't know anything better than a flaxseed poultice. If the mother wishes, I also add camomile, as it pleases the mother and does no harm.

DR. ATWOOD.—It seems to me, Mr. President, it is just as well to take into consideration in the treatment of pneumonia, the fact that it consists of different stages, and that the treatment that is applicable at one time is not applicable at another. During the state of engorgement the treatment should not be that which is instituted in the third stage. The treatment of the third stage must be different from that which is made use of in the first stage. Now I am an old school practitioner like my friend Dr. Montgomery, during the first stage I give quinine and ipecac and perhaps at the same time I administer veratrum viride with a view of controlling the rapid action of the heart, and it is always my custom to prepare during the treatment of the first stage, for the second stage, that is to say, procure as rapidly as possible, an absorption of the

effused material, so as to open up the air cells, and allow the child to breathe freely. I place the patient upon iodide of potassium, with mucilage and tincture of digitalis, and by the time the second stage is well developed if the iodide has had the proper effect, the kidneys have carried off the morbid materials which have been deposited; then as the case progresses we can use stimulants. I don't think it is possible to treat disease with any one remedy; it is necessary to take the disease at the different stages and treat it according to the pathological conditions that are present and the symptoms which are met.

Dr. Montgomery.—I am very much pleased with the gentlemen who have spoken. I believe they pretty much agree with me. In the first stage I give small doses of calomel, ipecac, bicarbonate of soda—those are the best remedies. I believe, of course, as Dr. Atwood does, that we must treat the different stages. In the early stages I give small doses of calomel, ipecac, soda, and afterwards I give the carbonate of ammonia and quinine. There is no doubt I think, but what this is a good treatment, yet I must say that I have been very much disappointed with it. I have lost a good many cases. The great trouble is that a good many patients are not seen by me until the child is almost in a hopeless condition. There is a purulent infiltration when I see the case, and of course, the case is very bad then. I agree with Dr. Atwood in giving iodide of potassium in these cases. I also give veratrum viride. I prefer it to digitalis. Digitalis is too slow in its action. I am a great admirer of veratrum viride. In all cases of young children—I am speaking of children under eighteen months of age—I am afraid to give digitalis. I am very much gratified with the remarks of the gentlemen, and the first case I have of a robust child I will treat it with digitalis.

Dr. Watkins.—I hope the Doctor construes me rightly as to the reason for giving digitalis in the first stage. I consider it in this way: pneumonia is an inflammation of the lung tissue, and we want to stop the irritation as soon as possible. Now my object in giving digitalis or any other heart sedative is to lessen the *vis a tergo*. We can ease the flow of blood. Now I prefer the digitalis for this reason, we control the heart's action without depressing the system as we do by using veratrum viridi. My

only object in giving a heart sedative is to tone down the flow of blood to the inflamed organ and thereby produce a state of quiescence, which is recognized as necessary to subdue the inflammation. To give perfect rest and quiet as near as possible.

DR. CHANCELLOR.—In speaking of diphtheria I will say that I became a victim to this dreadful disease in 1879, when on duty at the Baltimore infirmary, as a Resident Physician. I contracted this from examining the throat of a female immigrant, aged 17, from Ireland, who was brought to the hospital as soon as landing, with a simple and pure case of diphtheria; she died on the third day. I was confined to bed for about three weeks, with a very aggravated attack; my nurse likewise contracted it and we were both treated alike (as I was informed) with liq. ferri sulphatis, ʒiij., carbolic acid m. xx. and glycerine ʒv., as an application to the throat every four hours; and given tinct. of iron and quinine in large doses every two hours. Fat bacon was applied to the throat externally extending from ear to ear, and removed morning and night. Stimulants were given freely, to which I owe in part, my recovery. This has been my mode of practice, with few exceptions, for many years and always with success.

Many cases followed this epidemic, two of which occurred elsewhere than in the pharynx and larynx, one, that of a patient whom Dr. Howard had performed the operation of incising the cervix uteri and the diphtheritic deposit occurred upon the surfaces of the womb. She died on the second day. The other was a case of lithotomy, in the hands of Dr. Tiffany, and the diphtheritic membrane likewise appeared on the margin of the incision. This case recovered. All these cases were reported by Dr. Chew, in the *Maryland Medical Journal for* February, 1879.

DR. ATWOOD.—It is an incontestible fact that one man will treat pneumonia with stimulants and the patients will get well, and another man treats his patients with depressants and they get well. Each treatment will prove successful in some cases. I have been forcibly reminded of the course of treatment that was adopted, when I was practicing in Saline County, Mo., as long ago as 1859, when there was an epidemic of diphtheria: we used to prescribe the recognized treatment in that disease, administer iron and quinine and use chlorinated water but all to no purpose; the cases all died and we began to grow ashamed of ourselves; finally we consulted and came to the conclusion that,

as that plan of treatment had failed, we would try the opposite treatment; so we administered minute doses of mercury every hour and with the best success. We continued to use the chlorinated throat wash, and gave small doses of calomel to the child every two hours, and the cases recovered under that treatment. Now the close alliance or relationship existing between diphtheria and membranous croup, is held by a great many physicians, and the treatment of croup from time immemorial has been by mercurial remedies, and I don't see any reason why diphtheria should not be treated in that way.

Dr. Pollak.—During the last few weeks I have had several cases of diphthepia; in two houses I have had in one five, and the other six patients; these families were living near each other. The disease just went through the whole family. They were not severe cases. The treatment was something like Dr. Atwood stated. I gave calomel in exceedingly small doses—not more than an eighth of a grain; I also gave half a grain of bicarbonate of soda; used a spray of carbolic acid, very mild; and then I used the inhalation of the gas of slacking lime. I take a piece of lime and put it in a cup and pour a little water over it; I then put a funnel over it and allow the child to breathe it, and in a few minutes the membrane would come off and would come away without any trouble. It was reported in an eastern journal, that one gentleman gave as much as an ounce of calomel a day, and insisted that it relieved every case of diphtheria; of course, he was laughed at; but lo and behold, another gentleman of known character and experience, comes and backs up and states that he had used large quantities of calomel and never gave less than a drachm at a dose; this was the only remedy that did any good in those cases which I had last week—six cases that I had in the last two weeks. Every one of these got well, but as I say, they were not severe cases exceptone and that one came around very nicely.

Dr. Montgomery.—I should have mentioned as a part of my treatment, that I give inhalations of lime vapor. I take a lot of unslacked lime and place it in a pail of water, and put a sheet over it and the child so that the child has to inhale the fumes. I think it is an excellent thing in diphtheria.

Dr. Pollak.—The plan adopted by Dr. Montgomery, of throwing a sheet over the bucket of slacking lime is a dangerous

experiment. I know of two or three cases at the school of the blind, where the children have lost their sight from a particle of lime getting into the eyes. It is a dangerous practice.

DR. ATWOOD.—My plan of using the vapor of slacking lime is to place the bucket beneath the bed and put a sheet all around supported on bent hoops or other apparatus and allow the vapor to come up and go all around the child. There is no chance, by this means, of any lime getting into the child's eyes.

DR. POLLAK.—A piece of lime as big as a walnut will answer the purpose.

DR. ATWOOD.—The difficulty in using Dr. Pollak's method is that the child may be so young that it is impossible to make it hold the funnel; whereas in the other case, by using the method that I adopt, the child is compelled to inhale the vapor, and you can put it in as little lime as you please.

DR. POLLAK.—Nothing is more simple in the world. I put an elastic tube on the funnel and put it in the child's mouth and it is compelled to breathe it. There is no difficulty at all about it.

DR. WATKINS.—I heartily agree with the gentleman in regard to his treatment of diphtheria. I have been very unfortunate with my cases of diphtheria. I lost a larger per cent. than I felt like losing. My treatment is similar to the Doctor's except as to the calomel. My idea of calomel is that it tends to devitalize, to diminish the number of red blood corpuscles; and consequently I would hesitate to give it. I think calomel is a devitalizing agent similar to a strong cathartic in some respects, and I don't like to give it in a disease where there is danger of sepsis.

DR. ATWOOD.—I wish to take issue with the Doctor again. Calomel is not a devitalizing agent. If the Doctor examines the blood before the administration of calomel, counting the number of red corpuscles, then counting them afterwards, he will find that they are largely increased, very largely. So that it is really a tonic treatment after all. You cannot salivate a child under two years of age: You can't salivate it before it has its teeth. That is a well known fact. I have practiced medicine for thirty-three years; I have used calomel as freely as any man living, and I have never produced salivation in a child under two years of age.

DR. POLLAK.—I had a case in which I salivated a child under two years of age. It is many years ago; but the child was mercurialized and as a result it lost a large part of the cheek—there was quite a hole in the cheek. I don't see why it can't be done; there is no possible reason, so far as I know, why it cannot be done.

DR. ATWOOD.—The Doctor's individual case only establishes the general rule. It may have been the case if he had not given the mercury.

DR. POLLAK.—I think the hole came from the use of the calomel. The patient recovered and is a married woman.

DR. WATKINS.—I may be a little antiquated, but I don't know why Dr. Atwood classes mercury as a tonic. I have never heard mercury classed as a tonic before. I look upon its beneficial effects as the result of the natural tendency of the system to recovery, the mercury having acted as an antidote to the poison, and liberating the system from its poisenous effects.

DR. ATWOOD.—I would suggest to the Doctor the work of Keys; if he will examine the diagram he will see the representation of the number of red corpuscles increased under the influence of mercury in syphilis.

DR. WISE.—In regard to the point that children cannot be mercurialized under two years of age, I will state that the mercury is partially excreted through the salivary glands, and in young children these glands are rudimentary; the danger of salivation increases in proportion to the development of the glands. I think this is the explanation of why young children cannot be salivated. The experiments of Keys have been well substantiated. I think he stated that it is only in tonic doses that mercury is capable of increasing the red corpuscles of the blood, but it is only in small doses, much smaller than Dr. Pollak has been in the habit of giving.

DR. ATWOOD.—The Doctor is altogether in error in his statement in regard to the minuteness of the doses prescribed by Keys. He commences with one-fifth of a grain and gives that after each meal for three days; on the fourth day he increases it, giving two-fifths after breakfast, one-fifth after dinner and one-fifth after supper, he continues this for three days; on the fourth day he gives two-fifths of a grain after breakfast, two-fifths after

dinner and two-fifths after supper for three days; on the fourth he again gives two fifths of a grain after each meal, and thus he increases it; and when the remedy acts upon the bowels, causing diarrhœa, he gives one half of the dose last given as a tonic dose. Now one-fifth of a grain of the proto iodide of mercury is a larger dose than Dr. Pollak gave in his case: he says he gave one-eighth of a grain of calomel.

DR. WILLIAMS.—During the last few weeks I have been attending in connection with Dr. S. H. Frazier, a child who has had scarlet fever and then diphtheria, and as it began to recover from the last trouble, it had abscesses of the drums, and it was for that trouble that I was asked to see the child with Dr. Frazier. I learned in connection with the case, that Dr. Frazier is in the habit of giving in these cases of diphtheria especially, very large doses of quinine, and he says that he gives it for its antiseptic properties. In this case, which is a child about eleven years old, he gave from fifteen to forty grains a day and his theory is that it acts as antiseptic and kills the viris, whatever that may be, and thus eradicate the disease. He claims that the exhibition of excessive doses of quinine in this way saturates the system and acts more favorably in these cases. Personally I have had no experience in the matter. Also I might mention as a matter of interest, a case that recently came under my care, of an old gentleman about sixty years of age, who during the icy weather fell and struck the right side of his head upon the pavement. It hurt him considerable at the time, however, he was not unconscious for any length of time. Some days afterwards he became suddenly affected with aphasia—it was the form of aphasia which is called amnœsic annestic; in connection with this he was excessively stupid; he had no mind apparently. He hardly knew where he was or where he was going. He would forget his name and his wife's name. On examination I found that his ears were filled with wax, which I removed, that had the effect of clearing his head slightly and made him hear better. In connection with the trouble in his head he had divergence of the right eye, showing that the muscles supplied by the third pair were affected in some way, and for that reason he came under my care. At times he had double vision. For the last few days he has disappeared, at least I have not seen him, and it would not surprise me if he was found dead. He was very stupid

and when he went out he had to have some one with to him keep him from running against houses and other objects.

Dr. Pollak.—As we are mentioning singular cases I would like to relate one that I had under my care a few weeks ago, in which I was unable to make out the cause of the trouble. The girl has been in charge of several physicians, she is about seventeen years of age, is in perfect health and hearty looking. She complains occasionally of a little headache; it is very little and comes daily at a regular time; her trouble is that every few minutes she draws an audible sigh. This goes on day and night, every five or ten minutes. I was not able to localize the trouble. Where the disease is I have not been able to make out. It may be there is some trouble in the brain or spinal marrow, that I have not been able to make out.

Dr. Atwood.—What was your treatment?

Dr. Pollak.—I gave chiefly, bromide of potash. The battery has also been applied. Plasters have been applied but without any result. The pulse is perfectly normal, the secretions are normal, menstruation is normal the appetite is good and she sleeps well.

Dr. Watkins.—How many respirations are there between the sighs?

Dr. Pollak.—I didn't count them. Sometimes she goes five minutes, sometimes six or seven, but it never exceeds ten minutes.

Dr. Wise.—In what part of her head did she complain of the headache?

Dr. Pollak—The whole head feels a little too full. She is very intelligent and attends to her duties, but the sigh goes on all the time.

Dr. Wise.—Can't she control it?

Dr. Pollak.—She tries her best and can't do it.

Dr. Atwood.—It seems to me there must be a central lesion producing the trouble; probably at the root of the pneumogastric nerve; such sighing would be the result of some lesion of the nerves that supply the muscles of respiration. Of course, such a central lesion would only be apparent upon a post-mortem.

ARTICLE LII.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

[Reported for the JOURNAL.]

THURSDAY EVENING, March 8th, 1883.

The President, DR. JAS. TYSON, in the chair.

A Series of Specimens of Cancer, Involving the Stomach, Liver, Pancreas, Rectum and Lung. Exhibited by Dr. Guy Hinsdale. They were obtained from recent cases at the Episcopal Hospital.

CASE I.—Carl W., æt. 44, was admitted Oct. 23rd, 1882. He had never been ill before and his symptoms had been developed during the two weeks previous to admission. His bowels were regular, he had had no vomiting but had pain at the lower margin of the left ribs with cough and frictional sounds. Cachexia was marked. The abdomen was soft. A tumor was felt in the left hypochondriac region. The spleen was distinctly felt and enlarged.

The tumor increased in size, became more tender and pain was at times very severe. The patient's appetite was gone and emaciation was extreme. Twenty-six days after admission death occurred.

At the autopsy, fluid was found in the pleural, pericardial and abdominal cavities. There were old pleuritic adhesions. The roots of the lungs, the base of the left lung adjacent to the diaphragm, and the pleura beneath the ninth and tenth ribs were found to be the seat of cancerous deposit. The bronchial and thyroid glands were very much hypertrophied, but not cancerous.

The cardiac extremity of the stomach was the seat of an extensive cancer, but the cardiac orifice was not involved and the mucous membrane not destroyed. The pyloric end was intact. The pancreas was the seat of cancerous growth. The liver was of a dark mottled color and showed numerous metastatic growths in an early stage of development; its weight was 5 lbs. 9 oz. The spleen was greatly enlarged and the seat of small secondary deposits. Kidneys normal.

Microscopic sections of the thyroid gland showed simple

hypertrophy? Sections of the metastatic growth in the liver showed scirrhus cancer.

Case II.—James S., æt. 40, admitted Sept., 28th, 1882. During two months previous to admission, he had lost forty pounds of flesh, his skin had become very sallow, and vomiting, which at first was occasional, finally occurred after every meal. A tumor was distinctly felt on the left side, above the umbilicus; it moved with respiration and was painful on pressure. Albumen was present in the urine. The patient's mother had died of cancer of the stomach.

After admission, the tumor increased in size, the patient grew weaker, vomiting frequently and passing clay-colored stools. Death occurred on the thirty-eighth day after admission.

At the autopsy, the heart, lungs, kidneys and spleen were found in a normal condition; the stomach was very much dilated and contained undigested food. A cancer was found at the pyloric extremity. The walls of the pylorus were very much thickened and its orifice admitted the thumb with difficulty.

The liver was detached and found to be the seat of four large bases of secondary cancer. Its weight was 3 lbs. 14 oz. The gall duct was unobstructed.

A microscopic section of the growth in the stomach showed scirrhus cancer.

Case III.—Cancer of the stomach; Gastro-colic fistula.—C. W., æt. 66, was admitted June 13th, 1882. His health had been good until four months previously, when he vomited some dark bloody matter. Pain was occasional and occurred after eating. Vomiting had occurred once. Jaundice began three weeks before admission; the skin was dry and the body was much emaciated. Stools regular but clay-colored. The liver was slightly enlarged. Distinct nodular masses, slightly painful on pressure, could be felt in the epigastric and umbilical regions. The inguinal glands were slightly enlarged; the axillary glands remained normal. There was no cough; a faint low systolic murmur was heard at the aortic cartilages. The urine was dark yellow, sp. gr. 1010 and contained no albumen. Vomiting, emaciation and jaundice progressed, the tumors increased in size and death occurred two months after admission.

At the autopsy a cancer was found at the pylorus. A fistulous opening, large enough to admit the forefinger, was foumd to

exist between the stomach and transverse colon which were infiltrated by the cancerous deposit, and adherent to each other. The caliber of the colon was small. The mucous membrane of the stomach, at the seat of the disease, was ulcerated and ragged. There was no dilatation or hypertrophy of the walls of the organ. The gall-bladder was distended and both the pancreatic and common bile duct were obliterated. Heart, kidneys and other organs showed nothing very unusual. The mesenteric glands were slightly enlarged. The spleen was small and its hilus the seat of a hard calcareous plate; the organ was displaced, lying close against the diaphragm, some distance from the chest-wall, accounting for the perfect resonance which had been noted in the spleenic region.

CASE IV.—Rectal Cancer; Colotomy.—John M., æt. 71, was admitted to the hospital Oct. 26th, 1882. He had always been healthy until three months previously, when the movements of his bowels became irregular.

The patient suffered from diarrhœa. His urine was albuminous and contained hyaline casts. He had hydrocele. He denied specific history. Exploration of the rectum revealed a malignant stricture an inch and a half from the anus.

On account of the patient's age, operative measures were not contemplated until the passages became very difficult and hiccough and stercoraceous vomiting demanded relief. This was temporarily afforded by the operation of left lateral colotomy, which was performed by Dr. John H. Packard. Death ensued twenty-four hours later.

At the autopsy the wound was found in good condition; the descending colon was opened about three inches from the point of its bending downwards. An enormous cancer was found involving the rectum and posterior wall of the bladder and nearly filling the true pelvis. All the other viscera were in good condition. Microscopic sections showed the cancer to be scirrhus.

CASE V.—Cancer of the Rectum; Secondary Cancer of the Liver.—Christian H., was admitted July 6th, 1882. He stated that for twenty-seven years he had been perfectly well but that two years previously he had noticed loss of flesh, and about the same time discovered a growth at the anus which was small, but which gave him a great deal of trouble at stool. Two weeks later he noticed that his feet and legs had become swollen, but it

was not till his admission to the hospital that he became aware that there was anything the matter with his abdomen.

The patient's father probably died of cancer of the stomach.

The anal growth was excised and proved to be an adenoid type of malignant disease. Vomiting, dyspnœa and sallowness of the skin, increased until his death, five weeks after admission. The autopsy showed that the liver and rectum were the only structures seriously diseased. The liver was enormously enlarged and filled the whole upper portion of the abdominal cavity. It was slightly adherent to the diaphragm and adjacent viscera, and was studded with cancer nodules, varrying in size from that of a filbert to that of an egg, often coalescing and pretty equally distributed over the surface. The whitish color of these nodules was in strong contrast with the dark color of the liver, giving it a variegated appearance. Its weight was 10 lbs. 4½ oz. The walls of the rectum, six inches from the anus, were infiltrated with the new growth. This was the primary seat of disease. The secondary growth was very rapid, almost entirely painless in itself, and disturbing the patient only by mechanical irritation of the stomach and the production of œdema and ascites by interference with the circulation. Jaundice did not occur.

Microscopic sections of the anal growth revealed an adenoid growth resembling an aggregation of Lieberkuhn's crypts. The growth higher up in the rectum was more advanced and illustrated the encephaloid form of the disease. A section from the metastatic deposit in the liver showed a stroma of fibrous tissue with alveoli lined by epithelial cells, the peripheral cells retaining their *columnar* shape. It was an example of the reproduction in the liver, of the same follicles found in the primary disease of the rectum.

An Unique Specimen of Ossification at the Aortic Orifice. Exhibited by Dr. J. F, Eskridge.

It was sent him from a distance and consisted of about one inch of the cardiac end of the thoracic aorta, the aortic semi-lunar valves, and the immediate portion of the heart. The specimen was removed from a man, who, aged about seventy, had suffered a number of years from severe heart disease. The walls of the large arteries were thickened, rigid, and contained numerous deposits of inorganic matter. The left ventricle was enormously enlarged. He was unable to obtain any information with regard

to the condition of the cardiac valves, other than those of the aortic orifice.

Description of the specimen.—The aorta, where it surrounds the valves, for about half an inch in extent, is a hard unyielding substance of fibrous tissue, and calcified and ossified matter. The valves in several places are about one-fourth of an inch thick, and seemed to have been almost entirely transformed into bone-like material, They are rigid and immovable, and have almost completely cut off all communication between the heart and aorta. One of the leaflets, about three-fourth of an inch in all directions with its vegetations, stretches across the aorta, lies against and is apparently adherent to the other segments of the valves, the latter being curled upon themselves. The central portion of the aorta is entirely occluded, and only two small openings through which the blood could have escaped from the left ventricle are seen between the valvular leaflets near their peripheral attachments. The larger of these holes admits a flattened probe three m. m. wide by one thick; the smaller is about two-thirds as large. Three other small orifices have existed, but these were obliterated before death, by a thin, fibrous, transparent membrane which is still seen. The valves on the cardiac side are tolerably smooth, but on the aortic side they are very rough, one of the leaflets supporting a vegetation ten m. m. long. One of the segments of the valves is adherent to the inner coat of the aorta for about half an inch in extent, the free end of the valve being folded upon itself, and pointing toward the nearly closed aortic orifice. After macerating the specimen in water for forty-eight hours, the diseased valves still remain inflexible. Drs. Formad, Dunn, Griffith and Edwards reported having similar or nearly similar cases. Drs. Tyson and Nancrede called in question the correctness of calling the disease *ossification* of the valves, as it was in reality a *calcification*. Dr. Shakespeare concurred in this view, and thought that ossification rarely, if ever, occurred in this situation.

Dr. Eskridge said that Hayedn ("Diseases of the Heart and Aorta," Vol. II., p. 839) referred to bony deposits in the aorta and its valves as follows:

Sir. Dominic Corrigan exhibited before the Pathological Society of Dublin (see proceedings, vol. ii., new series, Feb., 1864) the heart of a young woman, in which the root of the aorta had undergone complete osteoid transformation; it was likewise

greatly dilated and the aortic valves had been rendered thereby inadequate. During the patient's last illness, a systolic murmur of metalic quality, appropriately designated a "trumpet-bruit," was audible at the base, and in the ascending aorta and carotid arteries: there was likewise a soft diastolic murmur. He regards a "trumpet-bruit" as absolutely diagnostic of bony deposits in the aorta, either in the form of a "rim of bone," or a "projection or tongue of bone." In the same paragraph Corrigan refers to Dr. Banks' specimen of a "tongue of bone," projecting into the aortic surface.

Reports of the Committee on Morbid Growths.—"A microscopic examination of a section made from the growth removed from the uterus, and presented by Dr. Brush, Dec. 28th, 1882, shows it to be adenomatous in structure, consisting of small cavities or spaces lined with cells, which cavities are separated from one another by fibrillar connective tissue."

"A section of the lymphatic glands presented by Dr. Parrish, Dec. 28th, 1882, shows that its normal structure is metamorphosed into that of a carcinomatous nature, consisting of an alveolar fibrous stroma, having the spaces filled with cells of an epitheliomatous type."

Report on Dr. Eskridge's specimen of brain, lung, liver, spleen, kidney and bladder troubles, presented Nov. 9th, 1882.—"A section made from one of the nodules of the liver, presented by Dr. Eskridge, examined microscopically, shows it to be a new formation consisting of epithelial cells placed in alveolar spaces, the tissue forming the alveolar walls being fibrillar connective tissue. The cells in the spaces at the periphery of the groups, and lying next to the alveolar walls, have a columnar shape, and are quite regularly arranged, while those of center are flat or squamous epithelial cells. The neoplasms are cylindrical-celled epithelioma. The post-mortem changes undergone by the brain were such as to prevent any satisfactory histological examination being made.

A Tumor Composed of Miliary Tubercles of the Subcutaneous Adipose tissue connected with one of the Anterior cutaneous Branches of the Lumbar Nerves. Exhibited by Dr. Naucrede.

The patient from whom this truly unique tumor was removed, was a young girl of eighteen years of age, who for four years past had had occasional cough, with at times some bloody

expectoration, but was able to attend to her occupation of housework. Her family history was not characteristic in any way. About one year since she thought that she "strained herself," since when she has been subject to attacks of abdominal pain, which extended to various portions of her body. She was admitted to the Female Medical Wards of the Episcopal Hospital, last fall, when dullness on percussion and harsh respiration at the apex of one of the lungs was detected. During Dec. 1882 the pains increased, and the right thigh became flexed upon the abdomen. A small exquisitively, sensative nodulated tumor was now detected just to the outer side of the right rectus abdominis. Dr. Morris J. Lewis, by whose kindness I am enabled to present this specimen, then asked me to see the case with him. Under ether I found a nodulated mass, beneath but attached to the skin, and freely movable upon the deeper parts. I then thought that the growth was one of the ordinary so-called neuromata, *i. e.*, usually fibrous growths in connection with some nerve and that the pains were reflex, as was also the flexion of the thigh.

Feb. 20th, 1883. I accordingly removed the growth, which, to my surprise, was markedly infiltrated, and only at one spot in any sense encapsulated, where it evidently had developed around a small cutaneous nerve and artery. The wound did badly and has left an indolent ulcer, *but all the reflex pains and flexion of the thigh have disappeared*, while the lung is breaking down, yet the patient is gaining flesh and looks and expresses herself as much better and thoroughly satisfied with the results of the operation. I have termed this growth unique because I believe that none such have been reported, *i. e.*, subcutaneous masses of tubercle large enough to require the surgeon's knife, and liable to be mistaken for other neoplasms. The present growth was about an inch in its various diameters, as far as could be estimated. Microscopically, sections show fibrous and adenoid tissue with giant cells according to the kind report of my friend, Prof. Lewis, whose observations have been confirmed by Dr. Formad and other pathologists as well as myself.

Dr. G. G. Davis said that he had seen a somewhat related case in the clinic of Prof. König, of Cottingen. A young man had a subcutaneous tumor just above and to the outer side of the patella. It was about one inch and a quarter in diameter and perfectly circumscribed. It and a portion of the joint capsule including the part to which it was attached, were excised anti-

septically. On the synovial membrane were found a number of what appeared to be miliary tubercles. There were no other evidences of tubercular disease, and he recovered with a good, movable joint. Prof. König regarded the case as one of the localized tuberculosis. He examined the excised portion microscopically. The tumor was hard but had undergone cheesy degeneration.

Dr. Nancrede thought that this interesting case related by Dr. Davis, still left his own unique, as Prof. König's case evidently had its origin from the synovial membrane, which was so closely related to the other serous membranes, which as is well known, are so very prone to miliary tuberculosis.

"A section of the growth presented by Dr. Nancrede for Dr. Seltzer, on microscopical examination, shows it to consist of an external covering formed of the histological elements and arrangement as found in the skin; the papillæ were in places much atrophied and flattened, also in some parts elongated. There were no hair follicles, sweat or sebaceous glands in the section. Below the papillæ was seen fibrous tissue, at some points in an active state of proliferation, and numerous blood vessels. The growth is a fibrous polypus."

Thursday Evening, March 22d, 1883.

The President, Dr. Tyson, in the Chair.

A Case of Chondroma of the Skull. Exhibited by Dr. J. Crozer Griffith.

The patient, aged 29, had been admitted to the Presbyterian Hospital, Phila., June 1st. He was and had been suffering from persistent and very severe frontal headache, and held his head thrown back upon his shoulders to the fartherest extent. Examination revealed a tumor the size of a walnut upon the anterior vault of the skull. This had been recognized by the patient for from one and a half to three and a half months. Just how long was uncertain, as his headaches were very much confused. He had suffered from headaches for twelve years. Ophthalmoscopic examination revealed doubled choked discs.

While in the house the tumor grew with great rapidity, and a new growth sprang up beside it. The larger one became soft and tender in spots. The patient became delirous but coma

and paralysis developed only three days before death, nineteen days after admission. The post-mortem examination revealed a large tumor on the anterior portion of the vault, consisting of a soft red mass, but full of bone spicules. And to the right, and connected with it, a smaller, dense hard white growth. Apparently distinct capsules enclosed and separated the two. The periosteum covered both tumors. The entire growth was irregularly oval, four and a half inches long by four inches to five inches broad, and with one and a half inches for its greatest thickness. Removal of the calvareum showed that the greater part of the tumor was internal. Here it was divided into three lobules, of which two resembled the larger tumor in structure, while the third was more like the smaller external growth. The duramater covered the internal projection. At points it was attached to the brain, and bone spicules penetrated into the brain substance. The length of the entire internal growth was four and a half inches, width four inches, and the greatest depression upon the brain two inches.

The tables of the skull within the tumor were destroyed, and the bone around the edge eroded for some distance. The brain structure did not appear to be altered. Microscopical examination showed it to be a reticular chondroma, with a large amount of imperfectly fibrillated and rather translucent connective tissue forming small meshes in which were cells; some embryonic, but very many cartilage cells. The bone spicules were evidently newly formed, and the older tumor had evidently undergone an ossifying metamorphosis, and then evidently had become vascularized, forming a soft mass, in which the spicules were embeded. Clinically, the case was of interest, from the existence of so great a depression of the brain, with so few signs of disturbance of its functions.

Dr. Wetherell asked what was the condition of the lymphatic system; were the glands enlarged? Dr. Griffith replied that only the post-cervical were affected.

Dr. Formad had examined the sections about a year ago; it is true, as he says, the predominant cells are those which resemble those of fibro-cartilage. There were, however, many young cells; cells like giant cells, but the majority of the sections had more the appearance of fibro-cartilage. The conclusion to which Drs. Tyson and Formad came at the time was that it was one of the varieties of chondroma. As the specimen appears

now, it is too soft for chondroma, but seems rather to be chondro-sarcoma. To this would point the rapid growth and age of the patient. It is certainly not gummatous.

A Case of Metastatic Pneumonia following Pistol Shot Wound of Temporal Bone. Presented by Dr. H. M. Fisher.

The patient, H. G., æt 26, from whom the specimens I present to night were taken, was admitted to Dr. Levis' Wards, at the Pennsylvania Hospital, October 31st, 1882, suffering from a pistol shot wound of the right ear. The following clinical notes of the case were kindly furnished to me by Dr. J. H. Wills, resident surgeon to the hospital:

Examination of the wound with the Nélaton probe showed that the ball had passed through the posterior wall of the external auditory canal, and was firmly imbedded in bone, about one inch from its point of entrance.

The seat of the ball was distinctly located by the marking of the lead on the porcelain of the Nélaton probe.

A prolonged effort to extract the ball was deemed unadvisable on account of its close proximity to the lateral sinus. On account of the inflammatory œdema of the tissues around the wound, poultices were applied. Ptosis of the right lid, and slight depression of the right corner of the mouth were noticed.

The patient remained in the hospital four weeks, during which time his general health appeared fairly good.

He was permitted to go out on a pass, returned the following day with well marked pleuro-pneumonia, and died ten days later.

The autopsy showed that the ball had penetrated the tympanic cavity, and passed into the jugular fossa, where it was found embedded. There was marked periostitis in the neighborhood of the wound, but no inflammation of the walls of the lateral sinus, nor of the internal jugular vein, was noticed.

I am inclined to believe that the infarcts found in the lungs and pleura owed their origin to numerous small thrombi that had been formed in this diploe of the petrous portion of the temporal bone; the venules of the diploe having been plugged as the result of the periosteal inflammation. These thrombi becoming loosened in consequence of increased blood pressure, were washed out into some one of the adjacent sinuses, and so into the pulmonary various circulations.

The case is, I think, an interesting one, as showing the dangers attendant upon such injuries to the temporal bone, apart from any incidental injury to the brain or its membranes.

Sections of the heart, liver, spleen and kidneys showed marked amyloid infiltration of these organs. Whether such marked changes could be induced in all their organs in the short period that elapsed from the receipt of the injury to the date of the patient's death, is a question I would leave to other members of the society to decide. At any rate, so far as I could ascertain, no previous history of suppuration was elicited from this patient during the time of his sojourn in the hospital.

Appended are the notes of the microscopical examination of the different organs:

Lungs.—Vessels everywhere greatly dilated, and present numerous infarctions: the alveolar capillaries are also greatly distended, and their endothelium is swollen. Inter-alveolar spaces packed with lymphoid cells and embryonic connective tissue cells. The alveoli contain accumulations of epitheliosed highly pigmented cells. These cells are generally found associated with exudative corpuscles in a delicate reticulum. These catarrhal intra-alveolar accumulations show in places a tendency to become organized.

The *pleura* is greatly thickened, its vessels dilated and infarcted.

Heart. Muscular fibres show commencing fatty degeneration, and there is marked amyloid infiltration of the walls of its smaller nutrient vessels.

Liver.—Cell-neuclei alone take carmine staining. Islands of liver-cells found in a translucent, nearly homogeneous basement tissue. Evident amyloid infiltration of the walls of the finer hepatic arteries and biliary ducts.

Kidney.—The malphigian corpuscles show different capillary loops and little shrinkage from the action of the alcohol. The lumma of the arterioles are patulous.

Homogeneous translucent spaces are seen between the smooth muscular fibres of these vessels.

Spleen.—The lymphoid corpuscles of the pulp appeared to me to present an unduly homogeneous translucent appearance. The smaller vessels show indistinct amyloid infiltration of their walls. The malphigian bodies also show a notable infiltration, having, in some cases, been converted into amorpheous masses,

which are semi-transparent, and show interspersed among them a few connective tissue nuclei.

A Case of Erysipelas Neonatorum. Presented by Dr. M. H. Fisher.

Was called, on March 3d to see a colored infant one week old.

The child was said to have presented no sign of indisposition until the day previous to my visit, when it suddenly became much agitated, refused to nurse, and was found to have difficulty in micturition. The tissue of the scrotum and penis were found to be swollen, and in a few hours a faint erysipelatous blush was found pervading their surface.

When first seen the child was apparently moribund. I could detect no radial pulse, its lips were blue, its extremities cold, and it was in a semi-comitose condition. In the hasty examination I made in the small, badly lighted attic, in which I found the child, I observed, but did not attach due importance to the erysipelatous blush I found extending from the scrotum to the lower part of the abdomen. From the history furnished me, and from the œdematous infiltration of the legs, thighs and eyelids, as well as of the scrotum and penis, I was inclined to look upon the case as primary acute nephritis, with secondary erysipelatous involvment of the œdematous tissues.

With this view of the case I ordered that the child should at once be placed in a hot bath, and after the bath applied flannels, wrung out in hot infusion of digatalis, to the patient's loins, and administered a small hypodermic of pilocarpine. Marked temporary improvement followed this treatment; the child emerged for a short time from its semi-comitose condition, cried lustily, and urinated and sweated freely, and marked reductions of the œdema was also noticed.

The improvement was, however, of short duration; the child soon relapsed into its former apathetic condition; death occured at 11 p. m. The autopsy made by Dr. McIlvaine, resident surgeon, eighteen hours after death, revealed rigor mortis pretty well established.

Œdema of the tissues of the lower extremities, scrotum and penis was noticed—there was a livid discoloration of the skin of the anterior inner aspects of both thighs, and slight sloughing of the skin of the lower part of the scrotum. The bladder contained about half an ounce of light yellow, opaque urine. The

urine obtained by tapping the bladder at the post-mortem showed, on examination, an apparent volume of albumen equal to about one-eighth of the column of urine in the test tube. Microscopically, blood and pus corpuscles were found in abundance, and a few highly granular tube casts.

The kidneys were somewhat congested and lobulated, but their capsule was not adherent, and they did not, at least to the naked eye, present any other evidence of disease. The liver weighed six ounces, and was highly congested. The spleen weighed one and one-half ounces, and was likewise congested and its surface mottled.

The lungs were pretty evenly congested, but were everywhere crepitant, and floated on water.

The heart weighed twe ounces, and presented, on the whole, a healthy appearance, but its posterior mitral cusp appeared somewhat thickened.

The post-mortem appearances leave, I think, but little doubt that the disease was peripheral in its origin, or, in other words, that the erysipelas was the starting point of it. Probably some comparatively trifling cause, such as a slight abrasion of the skin of the scrotum sufficed, under the very unfavorable sanitary conditions in which the patient was placed, to light up the train of the disease, with all its complications.

The progress of the disease seems, in this particular case, to have been unusually rapid. If the mother's statements can be trusted, only 36 hours elapsed from the first onset till its fatal termination.

Editorial.

Article LIII.

SPECIALISM IN MEDICINE.

Dr. A. D. Price, of Harrodsburg, President of the Kentucky State Medical Society, in his Address delivered in Louisville, on April 4th, says:

"Specialism in Medicine has fought a good fight, and stands to-day in the 'front rank of usefulness.' It has added much to our knowledge, and its continued investigations will ever shed blessings on mankind.

It is a matter of regret that in this great commonwealth, where there are so many good and successful general practioners, there are so few specialists. Were the energies and abilities of those who could afford it, devoted to some special department of medicine, it would be to the advancement of science, and to the best interests of the sick. And were medical men imbued, regardless of personal considerations, with the desire to benefit humanity to the fullest extent, there is not a town or village where division of labor might not be made with profit to the profession and advantage to the afflicted."

More important truths have not been presented to the profession, than are contained in these two short paragraphs, and coming, as it does, from the President of a State Medical Society, its influence for good will be greatly increased.

There is, perhaps, one qualification which the specialist should possess, that has not been sufficiently urged by those who either speak or write on this subject; that is, he should have been a successful general practitioner for at least five years, or still better, ten years. It is utterly impossible for a fresh graduate to successfully practice any one of the specialties that is now becoming popular. There are many diseases that have symptoms quite similar to other diseases, and to be able to utilize the symptoms in pointing out a special disease, one must have a knowledge of medicine in general, *through experience*, as well as from the professor and from the text books.

The evil that threatens specialism is, that young men will read their anatomy, will read their physiology, and look over

theory, and practice of medicine and surgery, with an eye single to the specialty that they have in view. So soon as this is done, so soon is begun the degeneration of specialism. If specialism is to continue in the "front rank of usefullness" specialists must come from the ranks of the successful practioner.

KENTUCKY STATE MEDICAL SOCIETY.

This Association met in Louisville, April 4, 5 and 6 last. The meeting was held in the Masonic Temple. Its principal officers were as follows: Dr. A. D. Price, President; Drs. J. R. Bailey and T. D. Williams, Vice-Presidents; Dr. L. S. McMurtry, Secretary. The meeting was a large, harmonious and interesting one. A large number (24) of instructive papers were read.

Dr. Ap Morgan Vance, of Louisville, read a paper on "An Orthopedic Case," that attracted much interest and gave rise to much discussion pro and con. The paper will be published in the official organ of the society. After its publication it will appear in the JOURNAL, as it is a case that will greatly interest the medical public on account of the result, (which was excellent) and the refusal to pay surgeon's fee, it being larger than usual, but not larger than it should be, as the patient is wealthy. As a general thing physicians and surgeons charge for *time consumed* and not *for results*, as they should do.

Dr. W. O. Roberts, read a paper on the "Clinical Observations on Head Injuries," relating quite a number of very curious cases. Dr. McCormack, of Bowling Green, President Elect, related the history of a most extraordinary case of a boy being injured on the head, causing a depression of the skull. Between the time of receiving the injury and the time that the depressed bone was raised, the patient was married, purchased property, etc., all of which was instantly for gotten; his memory of the past extended from the time of receiving the blow on the head, back farther into his boyhood life. He did not know that he had a wife or possessed real estate, etc. The full history of this case will also be published in the JOURNAL.

Dr. F. C. Wilson, of Louisville, read a valuable paper "On Tracheotomy." He had a little fellow about five years old, on whom he had performed tracheotomy for diphtheritic closure of the glottis. Dr. David Yandell commented very favorably on

the paper, and concluded by saying that the little patient presented before the society, was the only successful tracheotomy for diphtheria in Louisville, all other attempts to save by surgical interference being unsuccessful, every patient but this one, dying.

Dr. Thos. F. Rumbold read a paper, by invitation, on the "Treatment of Chronic Nasal Catarrh."

TO THE SUBSCRIBERS TO THE "INDEX MEDICUS."

"In announcing the continuance of the INDEX MEDICUS for 1883, the publisher regrets to state that, although its subscriptions, particularly abroad, show a slight increase during 1882, the financial result still exhibits a deficit. This, however, is covered by the guarantee fund.

"It will be readily understood that the future of the INDEX MEDICUS is by no means assured. It cannot, in fairness to the generous contributers to the guarantee fund, be expected that they continue to cover the deficiencies *ad infinitum*. On the other hand, the capital sunk by the publisher during the first two years makes it impossible for him to incur any further serious loss. He is sanguine enough, however, to believe that it is within the power of the present subscribers to save the INDEX MEDICUS from a failure that would deprive the profession of an acknowledged aid. He therefore once more makes an earnest request for coöperation in his efforts to increase the circulation of the journal. He begs to submit for this purpose a printed list of subscribers, which, arranged geographically, clearly shows where some effective work may be done. If the principle cities were represented in the ratio of New York, Boston, or Philadelphia, the INDEX MEDICUS would be a success. If, indeed, each of the medical societies and libraries could be induced to contribute but one subscription, it would be safely established. It is in this direction particularly that the publisher wishes to enlist the personal influence of these who cannot otherwise aid him beyond their individual subscription."

F. LEYPOLDT.

31 & 32 Park Row, New York.

We are astonished to hear that the *Index Medicus* is in such a strait, as we thought that a journal so indispensable and valuable, as we have found the *Index Medicus* to be, would be patronized by the profession at large, and especially by those who are students. It is invaluable to the physician who wished to read upon a particular branch of medicine, as he can there find

all the authors who treat of that particular branch with which he desired to become more familiar; and also the physician can keep himself posted as to what works are being publised or have been published.

We sincerely hope that the profession, and especially our readers will not only contribute their subscription, but will also try to get their brother M. D,s. to subscribe for the *Index Medicus.* Subscription price. U. S. postpaid, $6.00 net.

The Collegiate Department of the Chicago Dental Infirmary is the first dental college to require its graduates in dentistry to be graduates of some medical College in good standing, or that they must be pursuing studies to that end in some reputable medical college.

This is a very good plan and will tend to raise the dental profession to a higher standard than they now attain to.

As water gas is coming into such general use, it may be of interest to our readers to know the composition, both of water and coal gas. We give *what is said to be* their respective compositions. We leave the readers of the JOURNAL to form their own conclusion as to whether it is right or not, *if it is true* then, water gas is a deadly poison; but we do not vouch for its truth.

Analysis of coal gas, New Haven, Feb. 11th, 1869, and water gas, Municipal Gas Light Company, New York, March 4th, 1878, made by Prof. Henry Wurtz, Ph. D.

Coal Gas.		Water Gas.	
Hydrogen - - - -	42.47	Hydrogen - - - -	38.20
Carbonic Oxide - -	**2.08**	**Carbonic Oxide - - -**	**27.14**
Marsh gas - - - -	46.16	Marsh gas - - - -	15.82
Illuminants - - - -	6.67	Illuminants - - - -	15.29
Air - - - - - - -	2.62	Nitrogen and Oxygen	3.45
		Carbonic Acid - - -	.10
	100.00		100.00

We learn by the Cornell University Register,that that Institution has introduced a preliminary medical course in their curricula and advise all students who intend to become physicians, to embrace these studies in their course; thus giving them a start in three of the main branches of medicine, viz., anatomy, chemistry and physiology.

We believe this to be a good plan, and would like to see all the western classical colleges take the same course. It is an acknowledged fact, that two-thirds of the medical students of the present day, know nothing whavever about these branches when they enter college, and it takes them the greater part of the first year to get the first principles of these branches, so that they can comprehend and understand what the professors are lecturing about.

Book Reviews.

Article LIV.

Manual of Gynæcology. By D. Berry Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh, Etc.; and By A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh; Late Assistant of the Royal Medical Society. Vol. II. (New York: Wm. Wood & Co, 56 and 58 Lafayette Place, 1883.) 8vo. pp. 366.

This is the February issue of Wood's Library of Standard Medical Authors. Like the preceding volume, it is well illustrated, having one lithograph plate and two hundred and ten wood cuts. This volume completes *part two*, which was commenced in the first volume. It also has an appendix of 22 pages, which takes up the subject of syphilis as connected with the diseases of women, and contains the latest foreign views on the complaint.

This subject is considered under three heads, viz.:

1st. Phenomena of an attack of syphilis and its treatment.

2d. Syphilis and marriage.

3d. Syphilis and pregnancy.

The treatment of this complaint is given in full.

The effects of so called hereditary syphilis upon children are carefully described. This description embraces, principally, the eye and the teeth. "In the eye there occurs, at the second dentition, and at puberty in girls, and interstitial peratitis; the opacity, beginning at the circumference, extends to the center and disappears in the same order, lasting for a period of from five to to twelve months."

The changes in the teeth have been fully described by Hutchinson. "The teeth stand apart, with interspaces between, and are rounded or peggy in form instead of flat; they usually exhibit in their border a broad shallow notch, or two or three serrations; owing to their softness they rapidly wear away, from the deficiency of enamel, have a dirty grayish color. The teeth thus affected are the incissors and canines of the permanent set, especially the upper incisors. The change in form is due to syphalitic stomatitis during the first weeks of life, which affects the development; if a syphalitic patient escapes stomatitis, the teeth will not be affected."

The last sentence of this quotation plainly shows that syphilis *per se* is not the cause of the formation of the teeth, as has been claimed by Hutchinson and all others after him who have written on the subject. In the St. Louis Medical Society in 1873, I stated that it would be found that this peculiar condition of the teeth would be observed in almost every infant that had suffered severely from stomatitis during the earliest weeks of its life, and cited not less than twelve cases that fully corroberated my assertions. In every instance in which an infant has been seriously affected with any disease in the first half year of its life, its teeth would plainly indicate an arrest of development, occasioned by the lowered condition of the system. These peculiarities of the teeth must have been observed by many hundreds of physicians. I do not think one case can be shown in which illness has affected an infant without producing marked changes on the teeth. Even a fracture of one of the limbs will show its effects upon the teeth. I believe that if it was possible to observe the development of other parts of the body as plainly as we do that of the teeth, the same arrest of development would be noticed, as a lowered condition of the system could not affect the teeth only.

There are thirteen chapters on the affections of the uterus; two on the vagina; three on the vulva and pelvic floor; one on disturbances of the menstrual functions; two on disturbances of the reproductive functions; four on affections of the bladder and rectum, making in all one of the most complete treatises on this subject extant.

These two volumes contain invaluable information to the gynæcologist.

Thos. F. Rumbold.

Transactions of the Medical Society of the State of New York, For the Year 1882. Published by the Society 1882. (Truiar, Smith & Bruce, Printers and Binders, Syracuse, N. Y. 8vo., pp. 500.

This Society was organized April 4, 1806, consequently it is one of the oldest medical societies of the country; for this reason we very properly expect well digested papers, and equally learned discussions. No one who reads their transactions will have this expectation disappointed.

President Jacobi's address on infant feeding and infant foods is very interesting and practicable. The subject of reform in medical education gave rise to quite a lengthy discussion.

Dr. Vander Poel's paper on the condition of the Tuberculosis question excited long and very interesting discussion. At the commencement of the discussion Dr. Moore, of Rochester, asked the almost unanswerable question, "What is scrofula?" While his remarks are very terse and clear, President Jacobi's are still

a little plainer, and as his remarks are so instructive, they are given at some length:

"I have asked myself the same question a hundred times, 'WHAT IS SCROFULA?' It appears to me that we use the word in a number of instances where we do not care to use much circumlocution. It is a convenient word to express a number of conditions. For instance, there is inflammation of healthy mucous membrane, a simple catarrh of the eye, lip, mouth, anywhere in the body, it heals very rapidly, and we do not speak of scrofula

"But there is inflammation of another mucous membrane, or of the same mucous membrane in another individual, and it does not heal readily, and when we study the changes we find that they are of the following kind: New granulations spring up, proliferation of new cells takes place, as if it was to heal as readily as in the other case; but it does not heal, and instead of the formation of new epithelial structure, we see the ulceration extending deeper into the intercellular tissue, and although granulations form, the new cells break down as fast as they are formed, and we call that a scrofulous process.

"Or, there is a blow upon a bone, it heals quite well in a number of persons, but in others it does not. The same original process takes place in two persons; there is a little hemorrhage under the periosteum; a certain amount of irritation takes place, a slight proliferation of cells occurs; the periosteum is simply thickened, in one case, and total absorption follows; recovery is complete, and that is the end of the difficulty. In the other case, as soon as the new cells begin to be formed, the end is reached, so far as healing is concerned, and they break down as fast as they are formed. In the one case we have the healing process going on kindly, while in the other we have ulceration of the bone. Whenever such a slow healing process manifests itself, and there is a constant breaking down of new cells, whether upon a mucous membrane or bone, we call the individual upon whom such a slow healing process occurs, scrofulous. We did not know before hand that he was scrofulous, but we conclude that he was scrofulous after we have seen these processes. It is a convenient name to apply to a person who exhibits the fact that granulations form normally, but instead of terminating normally, they break down in an unusual short time, and instead of forming tissue, are dissolved. This is what we call scrofula.

"Or, an ordinary stomatitis occurs; the mouth is sore; salivation occurs, with irritation. The result is irritation of the lymphatic ducts in the neighborhood and swelling of the adjacent lymphatic glands. Now, we expect, in an absolutely healthy body, that when the stomatitis has subsided, the affected lymphatic ducts and glands will soon return to their normal condition. But we know that there are quite a number of cases in which, when such an enlargement of glands takes place, it does not disappear, and when the accumulation of cells is considerable,

the center will bread down, and we have, as the result, caseous degeneration of the center, and we call it a scrofulous condition. I have not been able to get any further than that. It is not necessary to fall back upon the blood, and upon humoral pathalogy, at all. I think that we are just as safe in saying that when we use the word scrofula, we are using a word which has no other significance than that it expresses a number of processes which take place abnormally, as described before."

Dr. E. C. Seguin's paper, "On the Efficient Dosage of Certain Remedies Used in the Treatment of Nervous Diseases," contains much practical information. He was led to prepare this paper by seeing uncured cases of nervous diseases, for which the attending physician had prescribed the proper remedy, but having administered it in does which, though justified by medical authorities, were wholly inefficient to influence the disease. In many cases the physician had been either wanting in experience or courage to fight his way to success against tradition, and book authority.

The first article he speaks of is the fluid extract of conium. The dose of the remedy as given by Wood, (1880) is "Dose m 1 to 2. (!)" Bartholow, "Dose m 2, m 5, increased to m 40." Quite a contrast to this is the doses administered by Dr. John Harley, of London. He administered it in doses of from ʒ ii (grm 8) to ℥ i (grm 32). By means of these quantities he obtained the paresis of nerves connected with the upper eyelid, arms and legs which is the chracteristic result of conium action on the spinal cord. "I have used conium a good deal in the last ten years, and have always employed the fluid extract as made by Squibb. I tried it in chorea, in spasms of paralized limbs, in general irritability, and in insomnia.

When the indication is present, as in chorea, to obtain muscular relaxation, after a few tentative doses of 20 to 40 minims. (grm., 1.2—2.4). I give at one dose 60, 80, or even 100 minims. (grm. 3.6—4.8—6.) These doses cause drooping of the upper lids (sometimes diplopia and paresis of the arms and legs. I do not repeat the dose until after the effects have passed off—in from 12 to 24 hours."

We have space to speak of another important agent that he mentions in his paper, viz.: *Aconitia.* This he used to relieve trigeminal neuralgia, with favorable results. "A large proportion of cases have been cured, and some very ancient cases (8 to 12 years) relieved by the medicine. A few cases, only, have been uninfluenced.

"In the last few years the alkaloid has been offered in pillular form by several reliable drug firms, and I can testify to the potency and reliability of Caswell & Hazard's tablets, and of Schieffelin & Co.'s pills. These firms furnish doses $\frac{1}{200}$ grain, and of $\frac{1}{100}$ grain."

Pathological Anatomy, Pathology and Physical Diagnosis. A Series of Clinical Reports Comprising the Principal Diseases of the Human Body. Systematically Arrainged in One Hundred Full Page Illustrations and One Hundred Pages Text. Complete in 25 Parts. $1.00 per Part. By J. A. Jeancon, M. D., Author of "Atlas of Human Anatomy." (Cincinnati: Progress Publishing Company, Pike's Opera House Building. Fourth Street, 1883. Folio, 15x20 inches.

In the specimen before us there are 20 beautifully colored plates. None can view them without being struck with the accuracy with which they portray the various affections of the brain. The text is short and to the point. A short history is given of each case, then of what was seen on post-mortem examination, after which are given the symptoms and pathology. The pathological portion of the brain in each case is illustrated, different portions of which are lettered for their better explanation.

Anatomical Technology as applied to The Domestic Cat. An Introduction to Human, Veterinary, and Comparative Anatomy. With Illustrations, by Burt G. Wilder, B. S., M. D., Professor of Physiology, Comparative Anatomy and Zoology, in Cornell University, etc. and Simon H. Gage, B. S., Assistant Professor Physiology and Lecturer on Microscopical Technology in Cornell University, etc. New York and Chicago, A. S. Barnes & Co., 1882. 8vo., pp. 575, price $4.50.

At first sight one is apt to be disappointed with this work. One needs but to look over a few pages, to be struck with the evidences of much study and careful pains-taking. This work is intended to prepare students for practical work in comparative anatomy, and it differs from other manuals on the same subject in the following particulars, it assumes no previons anatomical knowledge or experience, yet is rapidly progressive, introducing in succession bones, muscels viscera, vessels, nerves, brain and organs of sense, it is based on the domestic cat. The terms of description and designation, apply to all vertebrates. They are technical and in his selection he has paid great attention to precision and brevity.

The reasons given for the selection of the cat, are that convenience and economy are consulted by the use of one which is at the same time widely distributed, common, easily kept, is convenient and of moderate size, so as to be easily manipulated and cheaply preserved. There is a general list of the instru-

ments and materials required for ordinary anatomical work, and directions are given for their care. It is noticeable that all directions for dissections and manipulation begin with a special list of the instruments and materials required, instructions are given for coarse injections, for the preparation of bones and for the use of alcohol as a preservative. The study of the brain includes a consideration of the typical vertebrate brain.

The work has a large number (134) of illustrations, showing the methods of making the preparations and the manner of using all the instruments. Without doubt, it is the best work on comparative anatomy in the English language.

The Physician Himself, and What he Should Add to His Scientific Acquirements. By D. W. Cathell, M. D., late Professor of Pathology in the College of Physicians and Surgeons, of Baltimore. Third Edition. Baltimore, Cushings & Bailey, 262 W. Baltimore Street, 1883. 8vo., pp. 208, price $1.25.

The speedy sale of two large editions of this work, is the best evidence that the author has been successful in pleasing the reading medical public. The additions to this edition does not materially change it from those previously issued. It is a work full of pithy suggestions to physicians, every one of which is almost axiomatic. The following are good specimens:

"Never guarantee a cure or certain success, or a sure recovery even for a mosquito bite; guarantee nothing except that you know your duty and will do it."

"Ability to please and retain those who employ you in an emergency, or tentatively, is also a power that you should carefully cultivate."

"No one can succeed fully without the favorable opinion of the maids and matrons he meets in the sick room. The females of every family have a potent voice in selecting the family physician. I have often thought that the secret why so many truly scientific aspirants fail to get practice, is that their manner and acquirements do not appeal to the female mind."

"You will find that remembrance of the names of children and of patients you see but rarely, and the salient points of former interviews with them, are very useful adjuncts to other qualities."

"Children's likes and dislikes will control your destiny in many a family. people patronize various forms of quackery for no greater reason than that 'the children take it easily,' knowing from experience, that an attempt to give pills or bitter doses to refractory or spoilt children, means a fight and a failure."

The Diseases of the Rectum. Including Fistula, Hemorrhoids, Painful Ulcer, Stricture, Prolapsus, etc. With Diagnosis and Treatment, by Wm. Allingham, M. D., F. R. C. S., Surgeon to St. Mark's Hospital, for Fistula and other Diseases of the Rectum, etc. Fourth Revised and Enlarged Edition. With Illustrations, 8vo., pp. 168. (Phila.: P. Blakiston, Son & Co., 1882.) For sale by Frank Rivers, 204 N. 5th St. St. Louis. Price, cloth, $1.25; paper, 75 cts.

This book appears to have been well received by the profession in England and America as well as in France, Italy, Spain and Russia, as in the last four mentioned it has been translated into their languages. The work is gotten up in a systematic way and commences with the method of examination of patients, then taking up the various diseases as they occur in frequency.

Dr. Allingham's practice has been very large. In his hospital practice he has had 4,000 patients and from this very extended experience, he has written this work. It is probably the most practical work on these diseases, that we have in the English language.

Books and Pamphlets Received.

Article LV.

The Dispensatory of the United States of America, Fifteenth Edition. Rearranged, thoroughly Revised and Largely Rewritten. By H. C. Wood, M. D., Joseph P. Remington, Ph. G. and Samuel P. Sadtler, Ph. D., F. C. S. (Philadelphia: J. B. Lippincott & Co., 1883. St. Louis: H. R. Hildreth & Co.) Price $8.00.

The Diseases of Women, a Manual for Physicians and Students. By Heinrich Fritsch, M. D., Translated by Isador Furst, with 159 wood engravings. March No. of Wood's Library for 1883. (New York: Wm. Wood & Co., 1883. St. Louis: H. R. Hildreth & Co.)

The Pathology and Treatment of Diseases of the Ovaries. By Lawson Tait, F. R. C. S., Edinburgh and England. Fourth Edition, Revised and Greatly Enlarged. (New York: Wm Wood & Co., 1883. St. Louis: H. R. Hildreth & Co.)

An Index of the Practice of Medicine. By Wesley M. Carpenter, M. D., Interleaved. (New York: Wm. Wood & Co., 1883. St. Louis: R. H. Hildreth & Co.)

Alcoholic Inebriety, from a Medical Standpoint, with cases from Clinical Records. By Joseph Parrish, M. D. (Philadelphia: P. Blakiston, Son & Co., 1883. St. Louis: Frank Rivers) Price $1.25.

Lectures on Orthopedic Surgery and Diseases of the Joints, Delivered at Bellevue Hospital Medical College, During the winter Session of 1874-1875. By Lewis A. Sayre, M. D. Second Edition, Revised and Greatly Enlarged, with 324 Illustrations. (New York: D. Appleton & Co., 1883. St. Louis: R. H. Hildreth & Co.)

Fortieth Annual Report of the Managers of the New York State Lunatic Asylum at Utica, for 1882. (Weed, Parsons & Co., Printers, 1883.)

The Cornell University Register, 1882-83, Ithaca, N. Y.

Trichinæ; Their Microscopy, Development, Death, and the Diagnosis and Treatment of Trichinosis. By W. C. W. Glazier, M. D., Assistant Surgeon Marine Hospital Service. Illustrated,

17 cuts. (Detroit, Mich.: The Illustrated Medical Journal Co., Printers, 1883.)

Proposed Ordinance and Rules and Regulations, for regulating the Plumbing, House Drainage, Registration and Licensing of Plumbers, in the city of Philadelphia, as reported by the Committee of 21. (Philadelphia: P. Blakiston, Son & Co., 1883.) Price 10 cts.

The Percentage of College-Bred Men in the Medical Profession. A paper read before the American Academy of Medicine, Oct. 27th, 1882. By Charles McIntire, Jr., M. D., of Eastern Pennsylvania.

Fifth Bi-Ennial Report of the Trustees, Superintendent and Treasurer of the Illinois Southern Hospital for the Insane, at Anna, October 1st, 1882. (Springfield: H. W. Rokker, State Printer and Binder, 1883.

First Annual Report of the Board of Health of Kansas City, for the calendar year 1882. (Kansas City, Mo.: Press of Ramsey, Millett & Hudson, 1883.)

Some of the Misuses of Quinine as a Therapeutic Agent. By N. D. Gaddy, M. D. (Reprint from the Indiana Medical Journal, 1883.

The Doctorate Address delivered at the Fortieth Annual Commencement Exercises of Rush Medical College, by Moses Gunn, M. D., LL. D. (Reprinted from the Chicago Medical Journal and Examiner for April, 1883.)

First Annual Announcement of the Collegiate Department of the Chicago Dental Infirmary, of Chicago, Ill.; Session of 1883. (Chicago: Clark & Edwards, Printers, 1883.)

St. Clair Mineral Springs and "The Oakland." Illustrated Circular, Second (Revised) Edition. (St. Clair, Mich.: St. Clair Mineral Springs Co. Printers.

First Annual Report of the State Board of Health of Indiana for the fiscal year ending October 31st, 1882. (Indianapolis: Wm. B. Burford, Printer, 1883.)

The Best Methods of Treating Operative Wounds. By Henry O. Marcy, A. M., M. D., Boston U. S. A. (Reprinted from the *Medical Gazette*, Nov. 25th, 1882. New York: Birmingham & Co., 1883.)

Double Irrigation and Drainage Tubes; Uterine Dilitation by

Elastic Force. The Cure of Hernia by the Antiseptic Use of Animal Ligation. By Henry A. Marcy, A. M., M. D. (Reprinted from the Transactions of the International Medical Congress for 1881. London: J. W. Kolckmann, 1881.)

Transactions of the American Ophthalmological Society, Eighteenth Annual Meeting, Lake George, 1882. (New York: Published by the Society, 1882.)

Thirtieth Annual Report of the Pennsylvania Training School, for Feeble-Minded Children; Elwyn, Deleware County. (West Chester: F. S. Hickman, Printer, 1882.)

Two Cases of Reflex Laryngeal Cough, Due to Irritation of the Nasal Mucous Membrane, Carl Seiler, M. D., Philadelphia. (Reprinted from the *Archives of Laryngology*, Vol. III., No. 3, July, 1882.)

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1882. (Washington: Government Printing Office, 1882.)

Sur Quelques Causes de Maladies de L'Orville, Par A. Ducan, Chef de la Clinique laryngoscopique et Otologique. (Extrait de la Revue Mensuelle de Laryngologie, d'Otologie et de Rhinologie) (Paris: Octave Doin, Editeur, 1883.)

Handbook of Medical Electricity. By A. M. Roseburgh, M. D. (Toronto: Dudley & Burns, Printers, 1883.)

History of a Bone Impacted in the Subglotic Portion of the Larynx. By Ramon De La Sota, M. D., Leville, Spain. (Reprinted from the *Archives of Laryngology*, Vol. IV., No. 1, Jan., 1883.)

The Washington Plate, a Collection of Facts Relating to the Genealogy of Washington and the Origin of our Flag, for the first time put into permanent form. Sent by the New York Life Insurance Co. (New York: Root & Tinker, Printers, 1883.)

The Transactions of the American Medical Association, Instituted 1847, Vol. XXXIII. (Philadelphia: Printed for the Association, Times Printing Office, 1882.)

Transactions of the Medical Association of the State of Missouri, at its Twenty-Fifth Annual Session, held at Hannibal, Mo., May 16th, 17th and 18th, 1882. (St. Louis: Commercial Printing Co., 1882.)

The Opium Habit; Its Successful Treatment by the Avena

Sativa. A Paper read before the New York State Medical Society, with additions, giving a fuller description of its Therapeutic Action in Different Diseases, etc. By E. H. M. Sell, A. M., M. D. (Jersey City: Evening Journal Print, 1883.)

We are in receipt of the advance Proof sheets of the "Report of Proceedings of the Illinois State Board of Health." Quarterly Meeting, Chicago, April 12-14, 1883.

Aids to Medicine, Part I., (Double Part.) The General Diseases of the Lungs, Heart, Blood Vessels and Liver. By C. E. Armand Semple, B. A., M. B., Cantab., L. S. A., M. R. C. P., Lond. (New York: G. P. Putnam's Sons, 1883. St Louis: H. R. Hildreth & Co.) Price 25 and 50 cts.

News Items.

Article LVI.

The Law Regulating the Practice of Medicine and Surgery in Missouri.

Be it enacted as follows:

Section 1. Every person practicing medicine and surgery in any of their departments shall possess the qualifications required by this act. If a graduate of medicines he shall present his diploma to the State Board of Health for verification as to its genuineness. If the diploma is found to be genuine, and if the person therein named be the person claiming and presenting the same, the State Board of Health should issue its certificate to that effect, signed by at least four of the members thereof, and such diploma and certificate shall be deemed conclusive as to the right of the lawful holder of the same to practice medicine in this State. If not a graduate, the person practicing medicine in this State shall present himself before said Board and submit himself to such examination as the said board shall require, and if the examination be satisfactory to the examiners, the said board shall issue its certificate in accordance with facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

Sec. 2. The State Board of Health shall issue certificates to all who shall furnish satisfactory proof of having received diplomas or licenses from legally chartered medical institutions in good standing, of whatever school or system of medicine; they shall prepare two forms of certificates, one for persons in possession of diplomas or licenses, the other for candidates examined by the board; they shall furnish to the county clerks of the several counties a list of all persons receiving certificates; *provided*, that nothing in this act shall authorize the Board of Health to make any discrimination against the holders of genuine licenses or diplomas under any school or system of medicine.

SEC. 3. Said State Board of Health shall examine diplomas as to their genuineness, and if the diplomas shall be found genuine as represented, the Secretary of the State Board of Health shall receive a fee of one dollar from each graduate or licentiate, and no further charge shall be made to such applicant; but if it be found to be fraudulent, or not lawfully owned by the possessor, the board shall be entitled to charge and collect twenty dollars of the applicant presenting such diploma; the verification of the diploma shall consist in the affidavit of the holder and applicant; that he is the lawful possessor of the same, and that he is the person therein named; such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal. Graduates may present their diplomas and affidavits as provided in this act, by letter or by proxy, and the State Board of Health shall issue a certificate as though the owner of the diploma was present.

SEC. 4. All examinations of persons not graduates or licentiates shall be made directly by the board, and the certificates given by the board shall authorize the possessor to practice medicine and surgery in the State of Missouri.

SEC. 5. Every person holding a certificate from the State Board of Health shall have it recorded in the office of the county clerk of the county in which he resides, and the record shall be indorsed thereon; any person removing to another county to practice medicine and surgery shall procure an indorsement to that effect on the certificate from the clerk of the county court, and shall have the certificate recorded in the office of the clerk of the county to which he removes, and the holder of the certificate shall pay to said clerk of said county the usual fees for making the record.

SEC. 6. The county clerk shall keep, in a book provided for the purpose, a complete list of the certificates recorded by him, with the date of the issue. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The record of the county court shall be open for inspection during business hours.

SEC. 7. Examinations may be made in whole, or in part, in

writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

Sec. 8. The State Board of Health shall refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like causes, after giving the accused an opportunity to be heard in his defence before the board.

Sec. 9. Any person shall be regarded as practicing medicine within the meaning of this act, who shall profess, publicly, to be a physician, and to prescribe for the sick, or who shall append to his name the letters "M. D.;" but nothing in this act shall be construed to prohibit students from prescribing under the supervision of a preceptor, or to prohibit gratuitous service in cases of emergency; and this act shall not apply to commissioned surgeons of the United States army, navy and marine hospital service.

Sec. 10. Any itinerant vendor of any drug, nostrum, ointment or appliance of any kind intended for the treatment of disease or injury, or who shall, by writing or printing, or any other method, publicly prefess to cure or treat diseases, injuries or deformities by any drug, nostrum, manipulation or other expedient, shall pay to the State a license of $100 per month, to be collected as provided for by law, as all other licenses are now collected, and any person violating the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not to exceed five hundred dollars ($500), or by imprisonment in the county jail not to exceed six months, or by both such fine and imprisonment.

Sec. 11. Any person practicing medicine or surgery in this State without complying with the provisions of this act shall be deemed guilty of a misdemeanor, and punished by a fine of not less than $50, nor more than $500, or by imprisonment in the county jail for a period of not less than 30 days or more than 365 days, or by both such fine and imprisonment for each and every offence; and any person filing or attempting to file as his own, the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony and upon conviction thereof shall be subject to such fine and imprisonment as are

made and provided by the statutes of this State for the crime of forgery in the second degree, but the penalties shall not be enforced until a period of six months after the passage of this bill. *Provided, that the provision of this act shall not apply to those that have been practicing medicine five years in this State.*

SEC. 12. Whenever in this act it is provided that any duty or service shall be performed by any county clerk, such duty and service in the city of St. Louis shall be performed by the city register or health commissioner of the city of St. Louis, as if such officer was specially named to perform these duties and services.

SEC. 13. All acts and parts of acts inconsistent with this act are hereby repealed.

Approved April 2, 1883.

"THE JURY OUT WEST" has usually been regarded as the symbolification of all that is stupid and absurd, and its verdicts are extensively quoted as manifestations of unprecedented ignorance; but the verdict of an English jury, as recently given in the *London Lancet*, shows that the "jury out West" has reason for hope—for hope that others may yet surpass it in its peculiar notoriety for ignorance and stupidity.

The following written verdict was recently handed in by the foreman of a coroner's jury in New South Wales: "We are of A Pinion that the decest met her death from violent infirmation in the arm, produest from Unoan Caws."

THE CARDIAC MECHANISM AND THE DRUGS WHICH ACT UPON IT.—The number of nervous centers in or connected with the cardiac muscles has been much multiplied of late years, and is now sufficiently confusing to the ordinary student. These centers have, however, for the mammalian heart, in large part, only a physiological existence, the exact anatomy not being determined.

The centers whose action is more generally brought out in practical therapeutics are, 1st, two sets of motor ganglia in the heart-muscle, (*a*) one of which (corresponding to Ludwig's ganglion) inhibits, (*b*) while the other (corresponding to Bidder's, to Remak's, and to Löwett's ganglia) excites contractions. In ad-

dition, we have the heart-muscle itself, which some drugs seem to act upon directly, either exciting or paralyzing it.

2d. These cardiac centers are connected with three regulating centers, placed in the medulla and upper part of the spinal cord: (*a*) The first of these is the cardio-inhibitory center, situated in the medulla, communicating with the heart *via* the pneumogastric, and exercising a continually repressive influence upon the rapidity of the heart's beat. (*b*) The second center is in the upper part of the spinal cord, and it sends weak accelerating impulses to the heart *via* the sympathetic. (*c*) The third is the vaso-motor center, and it regulates the cardiac action only indirectly. Nerve-fibres pass from the heart to this centre (depressor fibres) which convey impulses depressing it, the blood vessels dilate and the heart beat is slowed.

The nervous mechanisms of the heart is made up of a fusion of sympathetic and cerebro-spinal fibres and cells, a fact which complicates its study. It should be remembered, however, that the heart beats automatically, and gets most of its motive impulses from local stimuli.

Cardiac tonics, therefore, must act chiefly upon the intrinsic mechanism, stimulating this or that motor-center according to the morbid conditions. In some cases, however, a medicine may apparently be a cardiac tonic when it really only affects the extrinsic mechanism.

M. Germain Sée has recently written a chapter on cardiac therapeutics in which he gives the following table showing the special action of different drugs on the heart.

	Stimulation.	Paralysis.
Cardiac muscle.	Digitalin.	The same in the second period of action.
	Iodine in small doses.	Emetin.
	Camphor.	Salts of copper, barium and potash.
	Caffeine.	Chloral in large doses.
		Scillaine.
Intra-cardiac muscular motor centers.		Saponine in its last period of action.
		Iodine in large doses.
Intra-cardiac inhibitory centers.	Muscarin.	Atropin.
		Fabarin.
		Spartine in large doses.
Intra-cardiac ramifications of the inhibitory filaments of the vagus nerve.	Nicotin.	Pilocarpin, second phase of action
	Pilocarpin.	
	Calabar bean.	
Trunk of the vagus nerve.	Aconitin.	Spartin.
	Nepalin.	Nepalin, second phase of action.
Accelerator filaments of the great sympathetic.	Apomorphin.	Spartin.
Medullary cardio-inhibitory centers.	Digatalin.	Chloral.
Vaso-motor centers.	Bromide of posassium.	Croton-chloral.
		Hydrocyanic acid.

This list is by no means complete. Thus, to the stimulants of the cardiac muscle we must add one or more of the active principles of convallaria, and atropin should be included as a paralyzer of the entire inhibitory mechanism.

M. Sée's table, however, will show that the term "cardiac tonic" is a vague one, and it suggests one important consideration, which is, that in order to study scientifically and carefully the action of drugs on the heart, it is necessary to use the isolated active principles singly at first, and not crude preparations which contain a number of them.

THE SOUTH-EAST MISSOURI MEDICAL ASSOCIATION.—The Eleventh Semi Annual Meeting will be held at Fredericktown, Mo., commencing Tuesday, May 1st, 1883. You are respectfully solicited to attend.

R. T. HENDERSON, Pres.

N. H. BONDURANT, Cor. Sec.

THE Twentieth-sixth Annual Session of the Medical Association of the State of Missouri will meet at Jefferson City, Mo., in the Hall of the House of Representatives, on Tuesday May 15, 1883, and continue in Session three days. The Society will be called to order at 3 o'clock P. M. You are cordially invited to be in attendance,

R. E. YOUNG, M. D., Chairman Com. of Arrang'm'ts.

J. W. BRENT, M. D., Secretary.

BEGINNING with the First Number of Vol. X. for May 3rd, 1883, the *Maryland Medical Journal* will be issued as a weekly publication and willl appear every Thursday. Each number will contain sixteen pages double column of solid reading matter.

AMERICAN MEDICAL ASSOCIATION.—The Thirty-fourth Annual Session will be held in Cleveland, O., on Tuesday, Wednesday, Thursday and Friday, June 5, 6, 7, 8, 1883, commencing on Tuesday, at 11 A. M.

Secretaries of Medical Societies as above designated are earnestly requested to forward *at once*, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to

send to him annually, a corrected list of the membership of their respective societies.

A Consultation Preferred.—Professor of Obstetrics:—"Young man, what would you do for a case of post-partem hæmorrhage?" Student behind the stove-pipe:—"Would run like h—l for a doctor, sir."—[*Exchange.*

Medical professor to raw student: "Where is the glottis?" "I don't know, sir. I think it is on the shelf in the dissecting-room with the rest of your surgical instruments."

Dr. Albert G. Craig, Vevay, Ind., suggests the substitution of linseed oil for olive oil in the composition of liniments. He has found it better as well as much cheaper.—[*Can. Med. and Surg. Jour.*

A Six-year-old's Idea of the Umbilicus.—While studying his anatomy during the administration of a bath, this hopeful (son of a physician) remarked: "Mamma, I think the navel must be where I was *finished of!*"—[*Med. and Surg. Rep.*

James T. Fields used to tell this story of Dr. Channing: "The reverend doctor and the medical doctor were both at a party in Boston one evening, and some one being taken ill, the man of medicines, Dr. Walter Channing, was summoned. The servant entered the room where the brothers were seated, and said, 'Dr. Channing is wanted.' 'Which Dr. Channing?' said Walter the physician, 'the one who preaches, or the one who practices?'"—[*Ibid.*

A New Protective.—Dr. Malinit (*Mediz. Obozr.*) recommends mixing, collodium ℔ j, caster oil ʒ j, almond oil ʒ ss, and carbolized oil ʒiij–ʒiv, and spreading it over a glass plate smeared with glycerine. The fluid rapidly dries, forming a transparent, thin, soft and light sheet, which when used, suffers no alterations from the contact with wound discharges, and may be employed repeatedly (of course, each time after its washing in a carbolic solutio).—[*Ibid.*

An Empty Spoon.—A young minisiter, who was not quite

self-satisfied with his own discourses, was always very curious to know what others thought of them. The Lord permitted him to gratify his curiosity one Sabbath evening, as he was passing the cottage of an humble but pious laborer. That good man was kneeling with his family, and the young minister paused a moment to listen. He was thanking the Lord for his spiritual mercies, and for the blessed Bible on which their souls might feed, "for thou knowest, oh, Lord," he said, "that we have been fed this day out of *an empty spoon*."—[*The Sanitarian.*

VOMITING IN PHTHISIS.—To relieve this symptom, Dr. Woillez painted the pharynx with a solution of bromide of potassium, and found it very useful. A pencil of charpic dipped into a solution of bromine in two-thirds of water was passed rapidly into the pharynx before meals, the patient being required to abstain from expectorating as long as possible. In several cases the vomiting was arrested by the first application, while in others the action, though less immediate, was beneficial.—[*Journal de Thérapeutique.*

INJECTIONS OF BROMIDE OF POTASSIUM IN CHORDEE.—Dr. Cambillard, in his *Thèse de Paris* for 1881, advocates the employment of a solution of patassic bromide to quiet chordee. Every one will admit, he truly says, that the painful erections called chordee are very difficult to relieve, and that the number of the remedies proposed is only equalled by their inefficiency. He has obtained uniformly good results from urethral injections of the following:—℞. Aquæ, ℥ij.; glycereni, ℥iij.; potassii bromidi, ℥iss.; tinct. opii, ℥j.—M. Sig. Four injections of this quantity in twenty-four hours. To prevent the nocturnal attacks, he insists that the last injection be practiced just on retiring for the night. These injections cause almost no pain, and are very effective in relieving the distress.—[*Med. News.*

DR. CAMBILLARD, in his *These de Paris*, for 1881, advocates the employment of a solution of potassic bromide to quiet chordee. Every one will admit, he truly says, that the painful erections called chordee are very difficult to relieve, and that the number of the remedies proposed is only equalled by their inefficiency.

He has obtained uniformly good results from urethral injections of the following:

℞.—Aquæ.....ℨij.
Glycerini.....ℨiij.
Potassii bromidi.....ℨiss.
Tinct. opii.....ℨj.—M.

Sig. Four injections of this quantity in twenty-four hours.

To prevent the nocturnal attacks, he insists that the last injection be practised just on retiring for the night. These injection cause almost no pain, and are very effective in relieving the distress.—[*Med. News.*

Palpitation of the Heart.—The British Medical Journal says:—" In the Appendix to the British Army Medical Department Report, Dr. Veale has given a summary of the ascertanied or most probable causes of palpitation in the cases he has examined. Of these, malarial fever ranks highest, followed by intemperance, heat of climate, marching on active service, exertion generally, excessive smoking, hardships on active service, and several minor causes. He does not consider that the pressure of the valise or of the belts now occupies a prominent place, as it fomerly did, although it may still contribute. He speaks very decidedly of the injurious effect of excessive smoking, although he hardly assigns to it as high a place among the causes as we should be inclined to give it, especially when combined with drinking. But it is a cause which it would be extremely difficult to abate, though probably something might be done in the way of issuing less "villainous stuff" to the soldiers than they are in the habit of smoking, the soldier loves his pipe, and its value as a 'care-breaker' may be, and I dare say is, very great; much caution would therefore be needed in any attempt to curtail this luxury, but in the meantime it would certainly be good economy on the part of the Government to insist that such a deleterious substance as the 'twist' or 'stick' tobacco should never be sold in canteens, or issued to the troops on board ship or in the field." If any one doubts the injurious influence of this tobacco on the heart's action, we recommend him to test it by taking the sphygmograph tracings of even an habitual smoker, before and after indulging in a pipe of it."—[*Therapeutic Gazette.*

A New Galactagogue.—According to Dr. Anderson, nursing women in Jamaica are accustomed to drink an infusion of the

leaves of *Gossyphium barbadensis*. Six or eight leaves are sufficient to make a cupful of this infusion which, when sweetened with sugar, has a very pleasant taste, may be taken to the extent of four or five teacupfuls in the day without inconvenience, and invariably stimulates the flow of milk.—[*Gaz. Med. de Paris* February 17, 1883.

A NEW FUNCTION OF THE RED-BLOOD CORPUSCLE.—From an elaborate experimental study, Dr. G. Fano believes that he has succeeded in demonstrating that peptones, whether transfused or absorbed from the digestive tract, are directly transfused into blood by a process of disintegration by which coagulable albuminoids and globulin are produced. The red-blood corpuscle is the active element in producing this change, which results in a direct increase of specific gravity, probably its potassium salts are derived from the peptone.—[*Lo Spèrimentale*, 1882, pp. 256, 370.

IN the new German Pharmacopeia three hundred and sixty articles have been struck out, and forty-eight added, a decrease of three hundred and twelve, the whole number being about six hundred. In a new edition of the United States Pharmacopeia two hundred and twenty-nine articles were cut out, and two hundred and fifty-six added, a net increase of twenty-seven, the whole number being one thousand.

TREATMENT OF VENEREAL AND COMMON WARTS.—Prof. Unna recommends for the treatment both of venereal and of ordinary warts the continuous application of unguentum hydrargyri, containing 5 per cent. of arsenic. In the case of a young girl upon whose hands were a hundred or more warts, the application for three weeks of a plaster, containing in each 0.2 square metre 10 grammes of arsenic and 5 grammes of mercury, caused entire disappearance of the disease without any irritation of the healthy skin. Cure was effected not by necrotic destruction of the warts such as occurs in the use of caustics, but by reabsorption, as in case of spontaneous cure.—[*Monatschrifte für prakt. Derm.*, No. 3, 1882.

ANÆSTHETIC MIXTURES.—The Vienna mixture, used is 8000 operations without accident, consists of three parts of ether and

one of chloroform; Billroth's, three of ether, one each of chloroform and alcohol. The committee of the Medico-Chirurgical Society of Great Britain, recommends one part, by measure, of two of chloroform, and three of ether.—[*Gaillard's Med. Jour.*

Chamomile Tea in Infantile Diarrhœa.—Dr. Elliot advocates the use of chamomile tea in the diarrhœa of young children (*Practitioner*, December, 1882). The dose, for infants under one year, is one-half to one drachm, and double that quantity for older children, given two or three times a day, or oftener. The rationale of the action is the power the drug possesses of subduing reflex excitability. This power belongs especially to the volatile oil contained in the flowers. A decapitated frog, previously fortified by a dose of chamomile oil, was not susceptible to the influence of strychnia, according to Grisan. He also calmed titanic convulsions, due to strychnia, by the same oil.—[*Med. Rec.*

A Fasting Doctor.—We are informed that a certain Dr. F. T. Cook, of Taylor, Texas, has been outdoing Tanner in the fasting line. On March 3, he had fasted for fifty-five days "with the exception of a pound of soda crackers, a small piece of Graham bread, and an occasional glass of sweet milk"—which are important exceptions. It seems to be a disputed question whether the cause of the fast is a diseased stomach or an affection of the heart. A local paper states that "while the Doctor frankly admits being desperately in love with a certain little lady, still he holds that a man can love on an empty stomach quite as well as he can with one filled with all the luxuries of life.—[*Ibid.*

The Treatment of Scalp Wounds.—Dr. W. S. Parker, of Piqua, Ohio, writes: "An article on scalp wounds in the last number (Feb. 24) of The Medical Record, prompts me to communicate a simple device I have used for the last twenty years in such cases. After cleansing the wound thoroughly, all hæmorrhage being suppressed, bathe the parts freely with balsam Peru, a time-honored, but none the less valuable antiseptic. Then, presupposing its existence, comb up along the edges of the wound, and exactly opposite, for the space of, say half an inch, the hair, which twist into a thread and tie with a *single* turn, drawing the edges of the wound gently but firmly together.

Having previously laid a well waxed ligature beneath the hair and parallel with the wound, tie with the thread the single loop of hair, employing a surgeon's knot. Repeat the process, *i. e.*, another single loop and a surgeon's knot, and you have a fixed dressing. The coaptation of the flaps is necessarily perfect. I have not hesitated to use sutures when necessary, owing to the absence of hair or its being too short, or from loss of tissue, and in my entire experience have had but one case of erysipelas following their use, which seems to bear out Professor Gross' teaching of the harmlessness of sutures in the scalp."—[*Ibid.*

Iodine and Blisters in Tabes Mesenterica.—In tabes mesenterica, Dr. Bouchut, of the Children's Hospital, recommends the application of blisters, or the tincture of iodine, upon the abdomen. If ascites be present, tapping should be employed without hesitation. The *régime* to be followed should be very severe—beef-tea, eggs, raw milk and claret. If diarrhœa be present, enemas of borax, one drachm each time, should be given, and three or four teaspoonfuls of glycerine in the day, by the mouth. Bismuth, or phosphate of lime, would be very useful. Your correspondent tried this treatment in an apparently hopeless case, and a rapid recovery ensued. The disease was far advanced, and and the child was abandoned by its ordinary medical attendant. —[*Medical Press and Circular.*

Sassafras in Rhus Poisoning.—Dr. R. L. Hinton claims that sassafras tea is almost a specific for the rash produced by poison oak. This is an infusion of the bark of the red sassafras. The poisoned parts are covered with compresses soaked in the cold infusion, while internally there is administered this infusion warmed, sugared, and with milk according to the taste. In other acute ypes of skin diseases Dr. Hinton has found sassafras infusiot of value.—[*The Medical Brief.*

Ground Oil Cake for Poultices.—A French writer, M. Lalller, declares that linseed meal deprived of oil is, contrary to the prevalent notion, much better adapted for poultices than the crushed seeds. The oil in the meal quickly becomes rancid, thereby seriously interfering with its utility for dressing wounds, while it has never been noticed that the oil at all enters the poultice. Free from any irritating properties, the exhausted linseed

makes a lighter poultice, and retains its heat much longer.—[*Ibid.*

Vehicle for Quinine.—One of the best vehicles for administering quinine, besides elixir of licorice, is an infusion of coffee, with or without flavor of chloroform. A good formula is the following:

℞. Quiniæ Sulphatis..... 10 grs. or more.
Infusi Coffeæ Tostæ, fl..... 4 ounces.
Syrupi Chloroformi, fl. ..... 2 ounces.

Mix the sulphate of quinine with the infusion of roasted coffee; when cold, add the syrup.

The "syrupus chloroformi" is prepared by dissolving twenty drops of chloroform in two fl. drachms of alcohol, and briskly shaking the liquid with three fluid ounces of syrup.—[*Ibid.*

The irrepressible printer has turned up this month with his usual mistakes. A sentence which should have read as follows was twisted and contorted until its best and probably only friend —the author—would fail to recognize it: "I have seen cases where the patient insisted that there was a foreign body under the lid, and had come for its removal." This is how the brilliant typo made it read: "I have seen cases where the patient insisted that there was a *frozen body* under the *bed*, and had come for its removal."

"Have you any 'Field's Aroma,' this morning? asked a hay fever sufferer of the druggist." "Never heard of it," promptly replied the pill-worker; "are you sure you've got the correct name?" "I think so; but here's where I saw it," said he, handing a paper to the clerk. The item read: "The aroma of the fields of growing wheat is highly recommended for hay fever." The sneezer was advised to buy a farm.

Advertisement from an English Contemporary.—"A medical student whose means are exhausted would like to meet some one who would advance him the necessary sum to complete his studies at a moderate rate of interest. If necessary, he would, as a guarantee, at once marry his creditor's daughter, or, if he prefers it, would give an undertaking to do so on passing his final examination."—[*Boston Med. Jour.*

PILOCARPINE IN POLYURIA.—Upon a patient suffering from Polyuria azoturica, there were used beladonna, bromide of potassium, laudanum, injections of morphine, and electricity without effect. Hypodermic injections of nitrate of pilocarpine (one p. ct. solution) however diminished the daily secreted urine from seventeen pints to three and a half pints, and the quantity of urea was decreased from 140 grains to 46 grains. The body weight increased steadily. In Polyuria glycosurica, the sugar rapidly disappeared. Fifteen injections will generally cure these diseases.—[*H. Morgagni Giornale.*

THE STRUGGLE FOR A LIVING.—We quote the following from a presidential address to the Maine Medical association by the late Wm. Warren Greene, M. D.:

"Witness the large number of doctors in every city struggling for a mere existence, and see how few out of the whole number really do the work. See how in almost every country village a full practice for one or two good men is piece-mealed by sharp and often acrimonious competition to the detriment of all.

"It would seem that in a calling so high, so noble, so sacred, men fit for such ministry should be sought for; but the great question of the young graduate is not 'Who wants me?' but 'Who will employ me?' not 'Who needs me?' but 'Where can I get a living?' In the case of four physicians dying, each in a country village, during the last year, I am credibly informed that in one instance two, in another three, the third five, and in the fourth case seven new men came to look the field over within ten days after the doctors' death, sometimes before the burial. In one case two attended the funeral, and in another, the widow had three letters from aspirants for the vacant place while the dead body of her husband still lay in the house.

"It is a hackneyed saying, with which two many ears are tickled, that "there is always room for good men.' Applied to the present condition of our profession it is false. Were only good men and the best men admitted it would undoubtedly be true. But all over the land, in city and in country, are well educated, cultured gentlemen, honest and loyal, striving in vain to secure a competence—yes, a bare living even—and too often is disappointment mingled with shame and mortification at the success of ignorant and unprincipled rivals. I have said that

the evil results of this excess in numbers are manifold. It leads to over-practice and to bad practice. The man who is hard pushed, who has a few patients and needs more, is tempted to make much of little; to magnify the importance of his cases, both in his own mind and to his patrons; to make uncalled-for visits, and to give too much medicine; and unnecessary medication soon ceases to be rational. Patients are injured in mind and body. The community is injured by teaching the people to attach undue importance to trivial diseases, and to over-estimate the value of treatment therein. Ligitimate, honest practice suffers in reputation; money is obtained under false pretenses."—[*The Medical Record.*

Smokign for Health.—"Don't you know it's very wrong to smoke, my boy?' said an elderly looking lady in a railway waiting-room, to young America, who persisted in puffing a cigarette, much to the old lady's discomfort.

"Oh, I smoke for my health," answered the boy, emitting a volume of smoke from his mouth, which almost strangled the old lady.

"But you never heard of a cure from smoking," continued the old lady, when she had regained consciousness.

"Oh, yes, I did," persisted the boy, as he formed his mouth into a young Vesuvius; "that's the way they cure pigs."

"Smoke on, then," quickly replied the old lady, "there's some hope for you yet."—[*Sanitarian.*

Constipation in the Infant.—Dr. E. B. McCormick, Masonville, Ky.: In response to the request of Dr. J. A. Postlewait, of Tarkie, Mo., in your last issue, I will suggest that the doctor prescribe the following for his patient:

℞ Resinæ podophylli..... gr. iv.
Alcoholis..... ℥ ss.

M. Sig. Five to ten drops, night and morning, for a child one year old.

If there is indigestion, tr. nux vomica, should be prescribed at the same time.—[*Med. Age.*

Ligation of the Innominate.—Mr. Mitchell Banks tied the innominate artery on February 28, at the Liverpool Royal In-

firmary, for aneurism of the second portion of the subclavian. The common carotid was also ligated. Mr. Girdlestone's kangaroo tendons were used with strict antiseptic precautions. The patient improved rapidly, and has left the infimary with his aneurism much better. This is the twenty-third case in which the innominate has been ligated; twenty-one proved fatal.—[*Lancet*, March 31, 1883.

Post-Graduate Instruction.—The subject of post-graduate instruction is one which at the present time is engaging profound attention. The mass of reputable physicians of any school deplore the diploma manufactories which are inundating the country with a set of men, granted the power to practice, without the necessary qualifications. This is a plain, patent fact, which can not and must not be ignored. The demand for a better grade of education, higher standards, preliminary examinations, etc., for the under-graduates, and well established Post-Graduate Colleges, managed by the best teachers that is possible to get together, are among the reforms that are being sought by the profession. The organization of a New Post-Graduate College in New York, and one in St. Louis, are significant facts, and show that the leaders in the profession see the necessity and the demand for institutions of this kind. We wish both schools much success, and they shall have our hearty support, but at the same time, they must keep free from any entangling alliances which will hinder their usefulness.—[*New England Medical Monthly.*

A Moddern Miracle.—The *New Orleans Picayune* says that a medical man in New Orleans, who is fond of his little joke, called on a colored minister, and began to catechise him: "Why is it," said he, "that you are not able to do the miracles that the apostles did? They were protected against all poisons and all kinds of perils. How is it that you are not protected now in the same way?" The colored preacher responded promptly: "Don't know about that, doctor. I 'spect I is. I've taken a mighty sight of strong medicine from you, doctor, and I is alive yet."

Bromide of Ethyl as an Aænstaetic in Labor.—Lebert (*Archives de Tocologie*, June, 1882,) says, that while chloroform has its dangers and ether its disadvantages, ethyl-bromide

is absolutely safe. Its employment hastens labor, and whilst it diminishes sensibility to pain, the intellect is scarcely at all affected. Its administration causes a dilation of the cerebral vessels, thus preventing syncope. Recovery from its use is speedy. There are no after-affects. It is to be given only during a pain, and if necessary, for hours. When pure, it is colorless, of an ethereal odor, causing when inhaled neither cough nor suffocation. Lebert is enthusiastic over it, and insists on its use in every labor, robbing, as it does, parturition of every pang.—[*American Journal of Obstetrics*, October, 1882.

"Father," said Johny, "this paper says that 'many prominent citizens are now ill with pneumonia and kindred diseases.' What is kindred diseases, father?" "Why, my son," said Smith, "a kindred disease is—is—is—why—yes, yes! a kindred disease is one that runs through an entire family—kindred, relatives, you know. Surprised you didn't know that, Johny."—[*Boston Transcript.*

Faith Cure.—"Have you ever tried the faith cure?" asked a long-haired, sallow-faced stranger, addressing a gentleman who sat behind him in a street car. "I have," was the answer. "Do you believe in it?" "I do." "May I ask, then, of what you were cured?" "Certainly, I was cured of my faith."

Scars—To Obviate.—The *Boston Journal of Chemistry* claims that the following mixture placed upon a granulation surface will prevent the scars from appearing at all unsightly, and at times preventing them from being noticeable: Take of borax an ounce and a half, of salicylic acid twelve grains, glycerine three drachms, rose water six ounces; make a solution.—[*Chicago Med. Review*, December 1.

Fungus Cancer and Fever Sores—Lime.—M. P. Greensward, M. D., Poughkeepsie, N. Y., writes: About three months ago I was terribly puzzled to find an effectual way of treating fungus cancer. It was about the size of a small chestnut, situated near the second joint of the middle finger, of ten week's duration, bled at the slightest touch, had a small neck and large body, looking like a mushroom, and had previously continued

to grow in defiance of all remedies used by several very able physicians—one of them recommending amputation of the finger.

I tried nitric, alternated with muriatic acids, with but little effect. At last, almost in despair, I tried prepared lime, expecting that the blood which flowed from this cancer at the slightest touch would unite with the finely powdered lime and slack it, when it would corrode and destroy the cancer, and so the event proved. In a few days I removed all the fungus growth and in three weeks it was cured, being drawn out by the roots.

In addition to the dry lime I used a plaster made of finely powdered lime and lard. This I placed over the cancer, after freely sprinkling it with dry lime.

I was led to use this remedy by reflecting on the great value of linseed oil and lime-water in burns, and was led to use it in fever sores, and have never found or tried a finer remedy for that purpose. It draws the fire from the fever sore just as quickly and as effectually as it draws fire from a burn.—[*Medical Summary.*

Translations.

Article LVII.

FROM THE GERMAN.

RESORCIN AS AN ANTIPYRETICUM. By Dr. Fürst of Vienna. [Translated for the Journal.] By S. Pollak, M. D., of St. Louis.

Resorcin was given in three hundred cases of puerperal fever, where the temperatare has reached a very high degree, in doses of three grammes, and repeated with regularity, and invariably lowering of temperature to the nominal condition—never lower—was the result. This change of temperature was always accompanied by profuse perspiration. It lasted several hours. The remedy had to be repeated in the evening, but in much smaller doses.—*Med. Zeitung.*

Resorcin Subcutaneously in Erysipelas (By Dr. Skibnewsby, St. Petersburg). A five per cent solution was injected in two virulent cases of Erysipelas, one idiopathic and the other traumatic, 15 times in each case, with complete arrest of the progress of the disease. In both cases the temperature was lowered rapidly, even below the normal.—[*Med. Zeitung.*

Resorcin in Anthrax (By Dr. Andeer Wurzburg). Resorcin is absorbed in every part of the skin a of frog, but is not absorbed by the healthy skin of men. It causes neither irritation nor paralysis. It will not discolor it; it does this in the pathological skin. It is, as a rule, the first sign that absorption has taken place. It will also stain the urine, and give it an olive, brown-green, and even blackish color, and with this and the resorcinized skin, a good amelioration will follow in all cases of lepra, rupia, variola, scarlatina and erysipelas. In all skin diseases depending on a parasitical micro-organism, it will have a beneficial result when given in suitable doses.

In a typical case of *anthrax* (where anthrax bacillii were easily demonstrated, and rabbits ineculated with it died septically). Resorcin was used with a rapid, good result. An unguent containing fifty per cent of R. was thickly applied to the pustula maligna, and colered with gauze. Pains ceased quickly, the highly colered pustules and nodules blanched, softened, and the necrosed cores could be easily extracted; recurring pustules yielded promptly to the R. unguent; regeneration of the epidermis ensued quietly.

The purest R. never irritates the tissues, nor causes any eruption, is therefore to preferred to all aromatic disinfectants. It never causes narcotism of any kind.—[*Med. Zeitung.*

WM. R. WARNER & CO.'S

SOLUBLE and PERMANENT

SUGAR-COATED PILLS.

PIL. ANALEPTIC. (WARNER & CO.)

℞ Pv. Antimonialis . . . . gr. lxxv.
Pv. Res. Guaiaci . . . . gr. c.
Pv. Aloes Soc. . . . . gr. lxxv.
Pv. Myrrh . . . . . gr. l.
M—flat pillulæ, No. C.

DOSE.—1 to 4 Pills.

PRICE PER 100, 60 CTS.

PIL. ANODYNE (WARNER & CO.)

℞ Pv. Camphoræ . . . . . gr. c.
Morphiæ Acetas . . . . . gr. v.
Ext. Hyoscyami . . . . . gr. c.
Ol. Res. Capsici . . . . . gtt. v.
M—flat pillulæ, No. C.

DOSE.—1 to 2 Pills.

PRICE PER 100, 75 CTS.

PIL. ANTICHLOROTIC. (WARNER & CO.)

℞ Potass. Chlor. . . . . gr. c.
Ferri Chlor. . . . . gr. l.
Pv. Podophylli . . . . . gr. c.
Pv. Myrrhæ . . . . . gr. l.
M—flat pillulæ, No. C.

DOSE.—1 to 2 Pills.

PRICE PER 100, 75 CTS.

PIL. ANTISPASMODIC. (WARNER & CO.)

℞ Ext. Hyoscyami . . . . . gr. l.
Morphiæ Acetas . . . . . gr. x.
Brom. Camphor . . . . . gr. l.
Pv. Capsici . . . . . gr. l.
M—flat pillulæ, No. C.

DOSE.—1 to 2 Pills.

PRICE PER 100, 75 CTS.

PIL. ANTIPERIODIC (WARNER & CO.)

℞ Cinchonidiæ Sulph. . . . . gr. c.
Res. Podophylli . . . . . gr. v.
Strychniæ Sul. . . . . gr. iii.
Gelsemin . . . . . gr. v.
Ferri Sulph. Exs. . . . . gr. l.
Ol. Res. Capsici . . . . . gtt. x.
M—flat pillulæ, No. C.

DOSE.—1 to 3 Pills.

PRICE PER 100, 80 CTS.

PIL. ANTISPLENETIC. (WARNER & CO.)

℞ Pv. Aloes Soc. . . . . gr. c.
Pv. Ammoniaci . . . . .
Pv. Myrrhæ aa . . . . . gr. l.
Ext. Bryoniæ . . . . . gr. c.
M—flat pillulæ, No. C.

DOSE.—2 to 4 Pills.

PRICE PER 100, 60 CTS.

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SACCARATED PEPSIN, which has proven its superiority over other Pepsins by its stability, uniformity and agreeable taste. In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia which is as follows:

One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

DRY PEPSIN CONCENTRATED, particularly recommended to manufacturers, possesses 8 times the strength of the above.

PREMIUMS were awarded to the above preparations at the international Exhibition Vienna, in 1873, and the Centennial Exposition in Philadelphia.

FELLOWS' HYPO-PHOS-PHITES

Contains **THE ESSENTIAL ELEMENTS** to the Animal Organization—Potash and Lime;

The **OXYDIZING AGENTS**—Iron and Manganese;

The **TONICS**—Quinine and Strychnine;

And the **VITALIZING CONSTITUENT**—Phosphorus,
Combined in the form of a Syrup, with *slight alkaline reaction.*

IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGH REPUTATION in America and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive qualities, whereby the various organic functions are recruited.

IN CASES where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

IST ACTION IS PROMPT, stimulating the appetite, and the digestion, it promotes assimilation, and enters directly into the circulation with the food products.

THE PRESCRIBED DOSE produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of **mental and nervous affections.**

From its exerting a double tonic effect and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

Each Bottle of Fellow's Hypophosphites contains 128 doses.

Prepared by JAMES I. FELLOWS, Chemist,

48 VESEY STREET, NEW YORK.

Circulars and Samples sent to Physicians on appliction.

☞SPECIAL TO PHYSICIANS.—ONE large bottle containing 15 oz. (which usually sells for $1.50) will be sent upon receipt of **Fifty Cents** with the application, this will be applied to the prepayment of Expressage, and will afford an opportunity for a thorough test in Chronic cases of Debility and Nervousness. Express charges prepaid upon all samples.

FOR SALE BY ALL DRUGGISTS.

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Standard pharmacetical preparations of the United States and foreign Phaemacopœias, and non-officicial preparations of large variety. Of the latter class we make a specialty of Fluid Extracts prepared from new and rare drugs from various parts of the world.

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Berberis Aquifolium.
Black Haw.
Blood Flower.
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California Fever Bush.
California Laurel.
Carnauba Root.
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Cascara Amarga.
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Cedron Seed.
Cereus Bonplandii.
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Cheken.
Chewstick.
Coca Leaves.
Cockle Burr.
Cocolmecan.
Corn Silk.
Coto Bark.
Damiana.
Dita Bark.
Dubosia Leaves.
Elephant's Foot.
Ephedra Antisyphilitica.
Eucalyptus Globulous.
Evening Primrose.
Ginger, Mexican.
Grindelia Robusta.
Griedelia Squarrosa.
Guaco Leaves.
Guarana.
Helianthella.
Honduras Bark.
Horsemiut.
Iron Wood.
Jaborandi.
Jamaica Dogwood.
Jamaica Pimento Leaves
Judas Tree.
Juriballi.
Kamala.
Kava Kava.
Kooso Flowers.
Lilly of the Valley Flws.
Lilly of the valley Root.
Manaca.
Mango Bark.
Mango Fruit.
Manzanita Leaves.
Mercury Weed.
Mistletoe.
Musk Root.
Paraguay Tea.
Pulsatilla.
Quebracho Bark.
Quinine Flowers
Rhus Aromatica.
Sabbatia Campestris.
Sandal Wood.
Sarracenia Flava.
Sassy Bark.
Saw Palmetto.
Shepherd's Purse.
Sierra Salvia.
Stylosanthes.
Sundew.
Thapsia Garganica.
Tomato.
Tonga.
Urechites Suberecta.
Ustilago Maidis.
Vaccinum Crassifolium.
Vervian, White.
Wild Bergamot.
Yerba Buena.
Yerba Del Manza.
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Yerba Reuma.
Yerba Santa.
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SUGAR COATED PILLS.

Our list of Sugar Coated Pills of the United and British Pharmacopœias, comprises most of the officinal and popular formulæ known to the profession, to which we have added several new and valuable combinations. Our pills are made entirely by hand, from the purest materials, and are sugar and gelatine coated by the latest and most approved processes. For solubility, regularity of shape, and beauty of finish, they are excelled by none.

IMPORTANT.—Our pills being coated while the mass is yet soft, will remain so for years. To be convinced of their extraordinary solubility, it is only necessary to open a few of them, for instance, quinine, chinchodia, or blue pills, all of which are usually found in the market, hard and insoluble. note also the rapidity with which the coating is dissolved in the saliva.

GELATINE PHARMACEUTICALS.

One of the greatest improvements of modern pharmacy is the use of Gelatine in various forms to render medicines more sightly, and to disguige their nauseous taste. This has given origin to the Gelitine Coated Pill—a full line of which, of similar formulæ to our sugar coated pills, will be found on our list—and also to the Hard, and the Soft Gelatine Capsules. We are dispensing Hard Capsules, empty and filled. The Soft, Elastic Capsules, however, are from the nature of their formation, always filled before leaving our laboratory. These Capsules are so soft and elastic that their walls may be brought into juxtaposition, and yet they will regain their original shape and size when the pressure is removed. This property renders them very easy of deglutioion, and they will slip down like an oyster or the yelk of an egg, though the largest of them is about half the capacity of a fluidounce.

SPECIALTIES.

Warburg's Tincture.
Solution of Sicerolc Acid.
Nitrite of Amyl Pearls.
Sanguis Bovinus Exsiccatus.
Liquor Acidi Phosphorici.
Liquor Acidi Phosphorici Comp.
Soluble Elastic Capsules.
Goa Powder.
Crude Petrolenm Mass.
Chian Turpentine.
Concentrated Ext. Witch Hazel.
Morure or Mercurio Vegetai.
Sugar Test Flasks.
Empty Gelatine Capsules.
Liquor Egotæ Purificatus.
Chlor-Anodyne.
Tonga.
Hoang-Nan.
Menhol.
Chaulmoogra Oil.
Gurjun Balsam.